PARTICIPANT SURVEY REPORT:

South Asia Regional Initiative for Energy (SARI/ENERGY)
Rural Energy Services (RES) Participants

FOR THE PERIOD
MAY 2001 THROUGH APRIL 2002

(Contract No. LAG-I-98-00010-00)
(Task Order No. 1)

Submitted to

U.S. Agency for International Development (USAID)
Energy and Environment Training Program (EETP)
Ronald Reagan Building
1300 Pennsylvania Avenue, N.W.
Washington, D.C. 20523
&
U.S. Agency for International Development (USAID)
South Asia Regional Initiative/Energy Program
USAID Mission
New Delhi, India

Submitted by

CORE International, Inc.
Suite 305, 5101 Wisconsin Avenue, N.W.
Washington, D.C. 20016
www.coreintl.com

January 13, 2003

TABLE OF CONTENTS

EXECUTIVE SUMMARY

I. INTRODUCTION

A. SARI/ENERGY RURAL ENERGY SERVICES TRAINING PROGRAM
B. PARTICIPANTS SURVEY

II. METHODOLOGY

- **A. SURVEY DESIGN**
- **B. PROGRAMS COVERED UNDER THE SURVEY**
- **C. SURVEY ANALYSIS**

III. SURVEY RESULTS

- **A. COMMON THEMES WITHIN RESPONSES**
- **B. RELATIONSHIP OF THE SURVEY RESULTS TO SARI/ENERGY RES PROGRAM INTERMEDIATE RESULT (IR5) AND RESULT INDICATOR AND CORE RESULT RESULT INDICATORS**

ANNEXES

ANNEX I: LIST OF ALL SARI/ENERGY RURAL ENERGY SERVICES PARTICIPANTS

ANNEX II: SAMPLE SURVEY LETTER AND QUESTIONS

ANNEX III: FULL RESPONSES OF THE PARTICIPANTS

ANNEX IV: LIST OF SARI/ENERGY RURAL ELECTRIC SERVICES ACTIVITIES (IN CHRONOLOGICAL ORDER)

EXECUTIVE SUMMARY

The Rural Energy Services (RES) Program is funded under the Energy and Environmental Training Program Indefinite Quantity Contract (EETP IQC) and implemented by CORE International, Inc. USAID provides funding for participants invited by USAID to attend training workshops and courses on rural energy. The results of this program contribute to USAID's objective of facilitating human capacity building through adaptation of best practices in this sector. Funding through the South Asia Regional Initiative for Energy (SARI/Energy) Program supports the participation of key energy sector representatives from South Asia to participate in courses and workshops under the SARI/Energy Program which focus on rural energy issues in South Asia.

The RES Training Program aims at:

1. Identifying a number of best practices in the region, which offer the greatest potential for transfer to promote increased availability of commercial energy services to rural and/or lower income consumers.
2. Identifying a priority plan for increased rural electrification by regional governments and sharing the best practices contained therein.
3. Increasing commercial energy supply provided to rural and/or lower income consumers.
4. Increasing the means for information exchanges for promotion of best practices in rural energy supply and increase in public information availability through print media and other mechanisms.
5. Training a number of trainers to transfer training skills to increase the availability of commercial energy supply to rural and/or lower income groups throughout the region.

As part of its commitment to maximizing the value of this program, USAID (both the SARI/Energy Program and the EGAT Bureau) is interested in gathering information on the experience of the participants, particularly as it relates to transfer of knowledge, capacity building, and best practices adaptation in the South Asia Region. Therefore, USAID requested CORE International to conduct a survey and document the impacts resulting from the participants' attendance at the various events. The Task Order assigned to CORE International required CORE to conduct three separate surveys resulting in three separate reports. This report concentrates on an analysis of the survey responses for those activities that were initiated by the SARI/Energy Program. It covers the participation of 105 regional participants sponsored by SARI/Energy to attend 6 separate activities.

The other two reports, submitted separately, are (i) *Participants Survey Report: USAID EGAT Bureau and Climate Change Team Invitational Travel* and (ii) *Participants Survey Report: SARI/Energy Invitational Travel Task Order*.

The total Level of Effort (LOE) for the entire Task Order for all three exercises was approximately 2 person months.

As the first step towards this exercise, CORE International developed a survey instrument for gathering information on the participants' experience in the various events and specifically determining the extent to which the participation of sponsored officials resulted in rural energy planning capacity building, transfer of skills, adaptation of best rural energy practices, and regional cooperation. The survey instrument developed by CORE was reviewed, commented on, and approved by both EGAT and the USAID Mission, India. The survey was deliberately designed to be short with the main objective being to document concrete examples where participants have used their knowledge gained through their attendance at an event. In addition to documenting what the participants were able to apply in their country, the survey also documents results, benefits, and impacts affected in their country as a result of their participation in a given program.

The survey also gathered inputs from participants related to the SARI/Energy Program website which documents the activities of the Rural Energy Services training activities. USAID and CORE sought inputs from participants as to what additional information should be contained on the website and how often the website would be used.

There were two parts to the SARI/Energy RES survey. The first part was carefully crafted to maximize the quality of information that would provide CORE and USAID with the best opportunity to link the results/impacts of the participants' attendance at the various events. Following a number of iterations, the following key questions were included in the survey and were carefully worded to ensure clarity, focus, and brevity in the responses:

PART I - SHORT ANSWER QUESTIONS FOR DOCUMENTING SUCCESS STORIES AND IMPACTS

1. ***How were you able to share knowledge learned in your program with other individuals?***

2. ***Describe one or more occasions where you were able to apply your knowledge.***

3. ***What was the positive impact and result that occurred in your organization because you were able to share your knowledge or apply your knowledge and how does that result relate to the objectives of the SARI/Energy Program?***

The second part of the survey focused on the issues relative to the usefulness, accessibility, and recommendations for enhancing the SARI/Energy Rural Energy Service Training Program web pages. The following questions were included in the survey instrument:

PART 2 - SHORT ANSWER QUESTIONS FOR DETERMINING THE BENEFITS OF A RURAL ELECTRIFICATION WEBSITE/WEB PAGE

1. **What should be the primary goal/purpose of a SARI/Energy RES website/page?**

2. **What would you recommend as the content for this website/page?**

3. **Who should be the primary users of this website/page?**

4. **If the website/page contained information regarding best practices in rural electrification worldwide, would you view this website/web page on a routine basis from your office?**

5. **Please provide any other comments relevant to the development of a website/page for participants in the South Asia Regional Initiative for Energy (SARI/E) Rural Electric Services (RES).**

The survey covered a total of 115 participants (some participants attended 2 to 3 RES events) to six events (2 workshops and four courses) during the period January 2001 - April 2002. The overall response rate was 25% and was considered very acceptable by both USAID and CORE International.

The comments provided by the survey respondents relative to the SARI/Energy RES Training Program web site contents under the SARI Energy website (www.sari-energy.org) will be presented separately to the SARI/Energy Program managers in USAID New Delhi and recommendations will be incorporated into CORE International's Third Year Work Plan. CORE will seek USAID approval for augmenting the CORE International RES web pages through the review of the Third Year Work Plan.

CORE sought the highest possible response rate from the surveys. Each survey was personalized with the participant's address, title, program name, dates of the program activity, and a deadline for the submittal of the information. After the

initial electronic mailing of the surveys, CORE allowed a reasonable time for receiving responses. After this reasonable time, CORE followed up with various participants via telephone and fax in order to increase the overall response rate. CORE International's SARI/Energy Office in New Delhi, India followed up with a number of participants to augment the information received in the responses. Many of the participants could not be contacted due to position changes and transfers to other locations and entities.

CORE International's analysis of the survey responses included two steps as follows:

1. Common Cross-cutting Themes Observed in the Survey Responses and Anecdotal Evidence Provided through Excerpts of the Responses from the Various Activities
2. Analysis of the Responses with Respect to SARI/Energy RES Program Intermediate Result (IR5) and CORE International's Intermediate Results (IRs)

The review and analysis of the data included in the responses indicated certain themes that were common across the survey responses. These common themes were cross-cutting across all SARI/Energy RES activities and were overwhelmingly demonstrated through the responses of individuals from each of the countries. The numbers in the parenthesis indicate the percent of the survey responses that documented that particular theme with anecdotal evidence.

1. **Sharing of knowledge with colleagues (100%)**
2. **Demonstration of the participants' understanding of the SARI/Energy RES Program**
3. **Amending power development policies, five year programs, and other energy sector documents (85-90%)**
4. **Demonstrations of a newly acquired knowledge relative to rural energy policies, practices, procedures, and technologies, as applied by other countries (60-65%)**
5. **Examples of human and institutional capacity improvements following the participants' attendance at an RES event (80-85%)**
6. **Appreciation for better performance of other South Asian countries in a given rural energy sub-sector (100%)**

The second part of CORE's analysis included an assessment of the survey results in relation to the USAID and CORE International Result indicators (RIs). The USAID Intermediate Result (IR5) for the SARI/Energy RES program is "***Regional adaptation of best practices that lead to improved rural energy services".*** The USAID Result Indicator (RI1) for the IR5 is as follows:

"USAID Result Indicator 1 - Number of best practices in rural energy delivery adopted in one or more countries"

CORE International, as part of its Work Plan, further subdivided the USAID Result Indicator 1 into the following specific CORE Result indicators:

> ***CORE Indicator 1:*** *Number of best practices regionally shared which offer the greatest potential for transfer to promote increased availability of commercial energy services to rural and/or lower income consumers.*
>
> ***CORE Indicator 2:*** *Number of new priority plans for increased rural electrification forwarded by regional governments.*
>
> ***CORE Indicator 3:*** *Number of (percent increase) increased commercial energy services provided to rural and/or lower income consumers.*
>
> ***CORE Indicator 4:*** *Increased means for information exchanges for promotion of best practices in rural energy services and increase in public information availability through print media and other mechanisms.*
>
> ***CORE Indicator 5:*** *Number of trained trainers to transfer training skills to increase the availability of commercial energy services to rural and/or lower income groups throughout the region.*

Although the present participant survey did not allow individual face-to-face interviews with participants, CORE International has attempted to conduct an analysis of the survey responses with respect to USAID and CORE's IRs listed above. A summary of the results is provided in Exhibit I.

EXHIBIT I: COMPOSITE SUMMARY OF SURVEY RESPONSES AND RELATIONSHIP TO SARI/ENERGY RES RESULT INDICATOR (RI1) AND CORE INTERNATIONAL RESULT INDICATORS

	SARI/ENERGY RES - USAID RESULT INDICATOR (RI1) AND CORE INTERNATIONAL RESULT INDICATORS	**PERCENT OF TOTAL RESPONSES SUPPORTING THE RESULT INDICATORS**
	USAID RES RESULT INDICATOR (RI1)	
1.	USAID Result Indicator 1 - Number of best practices in rural energy delivery adopted in one or more countries	80-85% of the participants reported making attempts to adapt best practices for RES in their countries: • Adaptation of REB/PBS elements • Decentralized SHSs based on Grameen Shakti Model • Expansion of the Sri Lanka ESD Project to the new RERED Project • Establishment of rural energy cells in Maharashtra (India), Nepal and Bhutan

		• Establishment of a National Energy Information Network by the Energy Forum in Sri Lanka • Managed to develop more effective monitoring indicators in order to monitor the progress of the provincial council supported projects • Many other examples
	CORE INTERNATIONAL RESULT INDICATORS	
1.	Number of best practices regionally shared which offer the greatest potential for transfer to promote increased availability of commercial energy services to rural and/or lower income consumers	100% of the participants are involved in developing new RES programs and projects with the assistance of donors
2.	Number of new priority plans for increased rural electrification forwarded by regional governments	65% of the participants have confirmed that they are involved in rural electric planning as part of national energy planning including regional/local participation at the consumer level
3.	Number of (percent increase) increased commercial energy services provided to rural and/or lower income consumers	While a percentage cannot be determined, what is more illustrative of the success of the SARI/Energy RES program is that successful models for rural energy services are being customized by the participants for their own situation as indicated throughout the responses. In this sense SARI/Energy RES Program is directly contributing to accelerating the planning for rural energy delivery.
4.	Increased means for information exchanges for promotion of best practices in rural energy services and increase in public information availability through print media and other mechanisms	100% of the participants confirmed that this program has been very beneficial to them in providing information and means for exchange of information rural electrification best practices in the Region and in other countries outside of the region. The SARI/Energy web site has been a key instrument of success as reported by the participants.
5.	Number of trained trainers to transfer training skills to increase the availability of commercial energy services to rural and/or lower income groups throughout the region	A total of 115 participants received training under the six events conducted by CORE during the period January 1, 2001 - June 30, 2002. Many (over 85%) of the respondents to the survey have confirmed that they have applied some of the knowledge and training received in day-to-day decision making and all of the survey

		respondents (100%) indicated that they shared the knowledge with their colleagues and superiors. In most cases, however, there has been a direct enhancement of the institutional capacities of the organizations based on training provided under the RES Program, as reported by the respondents. In some cases, such the Energy Forum in Sri Lanka, there has been a direct enhancement in the content and quality of RES training as reported by the officials of the Forum.

The information provided by the survey respondents supports a key need in the region -- enhancing institutional capacity through information transfer and new skills that the participants have taken back to their respective places of work in their home countries. There are many examples that document how the RES activities have resulted in enhancing institutional capacity of energy entities in the region. The survey responses include many of these examples of transfer of best practices that have directly resulted from one or more of the RES activities sponsored by the SARI/Energy Program. These are discussed in detail in the main body of the report.

Another set of surveys will be conducted in July 2003 and will cover additional RES activities which are conducted after April 2002.

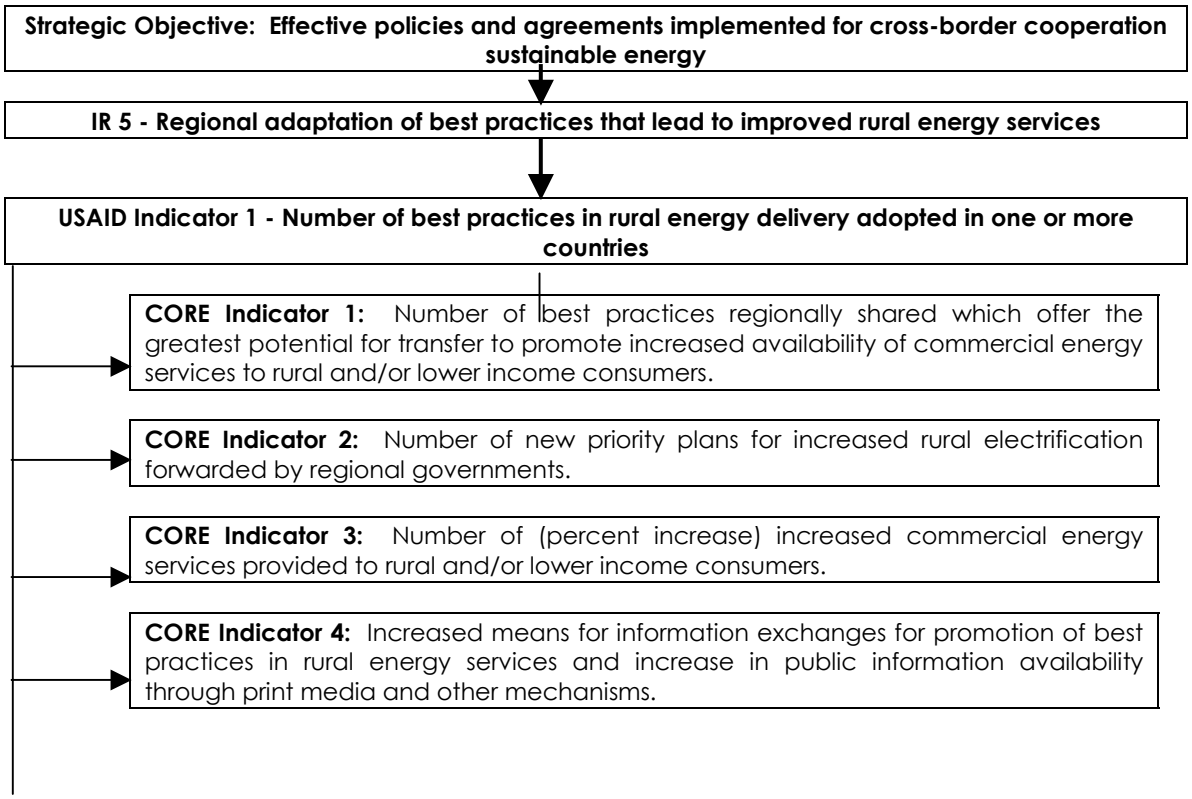
I. INTRODUCTION

A. SARI/ENERGY RURAL ENERGY SERVICES TRAINING PROGRAM

The SARI/Energy Rural Energy Services (RES) Training Program is funded under the Energy and Environmental Training Program Indefinite Quantity Contract (EETP IQC) and implemented by CORE International, Inc. Through this program, USAID provides funding for participants invited by USAID to attend regional workshops and courses. The results of this task order contribute to USAID's objective of facilitating human capacity building through adaptation of best practices in the development, management, and operation of rural electric utilities. Funding through SARI/Energy RES Training Program supports the participation of energy sector representatives from Bangladesh, Bhutan, India, Maldives, Nepal, and Sri Lanka to participate in workshops and courses developed and delivered by CORE International which focus on the planning, development, and delivery of rural electricity in South Asia.

The SARI/Energy RES Training Program began February 2001. Exhibit I provides the overall framework for the Program. It lists the SARI/Energy Strategic Objective (SO) and Intermediate Results (IRs), which formed the basis for the Program.

EXHIBIT I: SARI STRATEGIC OBJECTIVES/INTERMEDIATE RESULTS INDICATORS
SARI/Energy Rural Energy Services Training Program



CORE Indicator 5: Number of trained trainers to transfer training skills to increase the availability of commercial energy services to rural and/or lower income groups throughout the region.

The RES Training Project being implemented by CORE International, Inc. addresses (i) rural electrification, (ii) expansion of rural energy supply modalities to other clean energy forms, and (iii) renewable energy supplies. The program is designed to address the "rural energy supply problem" by building enduring rural energy institutional capacity, involving the private sector in rural energy supply, and realizing best rural energy practices demonstrated in South Asia.

The basic objective of rural energy supply training through SARI/Energy is to identify differences between urban and rural distribution utilities and build an understanding among political leaders and utility executives on ways to best develop rural energy supply programs in South Asia. The South Asian countries participating in the SARI/Energy Project mainly exchange ideas, energy technologies, and best practices. The rural energy supply involves relatively small amounts of energy usually confined to a single country. The generation associated with RES is also usually small compared with export power projects.

The RES Training Program aims at:

1. Identifying a number of best practices in the region, which offer the greatest potential for transfer to promote increased availability of commercial energy services to rural and/or lower income consumers.
2. Identifying a priority plan for increased rural electrification by regional governments and sharing the best practices contained therein.
3. Increasing commercial energy supply provided to rural and/or lower income consumers.
4. Increasing the means for information exchanges for promotion of best practices in rural energy supply and increase in public information availability through print media and other mechanisms.
5. Training a number of trainers to transfer training skills to increase the availability of commercial energy supply to rural and/or lower income groups throughout the region.

The Year One (2001) Work Plan for the RES Training Program included one workshop and four training courses. The first year experience underscored a number of important regional issues including the following:

- The need for fostering greater interaction among regional partners through key local institutions;
- Lack of finances for implementing rural energy programs;

- Lack of private participation in rural energy programs. How to motivate private organizations?;
- How the private organizations can supply power or sell energy delivery equipment on commercial basis to rural poor population who cannot afford to pay for such equipment?;
- Integration of rural energy programs with other rural development programs;
- Regional exchange of technologies suited for rural energy;
- Cross-border trade of technologies and equipment suitable for rural energy applications;
- Institutionalization of local participation in rural energy planning, that is, decentralization of rural energy and development programs; and
- Enactment of laws and regulations for creation of rural electric utilities.

Based on these events during year 1, a number of windows of opportunity surfaced including the following:

- Establishment of a forum for regular exchange of ideas for rural energy programs;
- Establishment of regional associations of small power generation organizations; and
- Establishment of regional associations of renewable energy equipment manufacturers and suppliers.

Also, the workshop/course evaluation surveys conducted by CORE International at the end of each event provided considerable feedback that was used as input for the design of the Year Two (2002) Work Plan. The key points from the feedback are summarized below:

Need for Roundtables, Workshops, and Courses

- Workshops for local level rural energy and rural development planners, and regulators;
- Roundtables for politicians, ministers, members of Parliament, members of Legislative Assembly, and senior government officials on rural energy issues and its importance for overall rural development and poverty alleviation in the rural sector;
- Training course on financing rural energy projects;
- Training course on regulation for integration of rural energy programs with rural energy development programs; and
- Training courses on process of decision making for rural energy programs.

Design of Training Courses

- More role playing exercises and at least one exercise early on during the course, perhaps the second day of the course;

- More regional examples in the training courses; and
- The participants may present country papers in the beginning of the program. The country papers may highlight the problems faced by the country and the approach adopted to address them.

Currently CORE International is conducting the Year Two Work Plan events. These include one workshop (2-3 days), two courses (6 days each), and four roundtables (1.5 days each).

B. PARTICIPANTS SURVEY

As part of its commitment to maximizing the value of this program, USAID (both the SARI/Energy Program and the EGAT Bureau) is interested in gathering information on the experience of the participants, particularly as it relates to transfer of knowledge, capacity building, and best practices adaptation in the filed of rural energy in the South Asia Region. Therefore, USAID requested CORE International to conduct a survey and document the impacts resulting from the participants' attendance at the various RES training events organized and delivered by CORE International.

The Task Order assigned to CORE International required CORE to conduct three separate surveys resulting in three separate reports. This report concentrates on an analysis of the survey responses from participants to those activities that were conducted by CORE International under the SARI/Energy RES Training Program. It covers the participation of 115 (some participants in more than one course) regional energy officials to two workshops and four courses during the period January 2001 - April 2002.

The other two reports, submitted separately, are (i) *Participants Survey Report: USAID EGAT Bureau and Climate Change Team Invitational Travel* and (ii) *Participants Survey Report: SARI/Energy Invitational Travel Task Order*.

The total Level of Effort (LOE) for the entire Task Order covering all three survey exercises was approximately 2 person months.

All of the events under this program were designed to correspond to CORE's SARI/Energy Work Plan for Year 2001 and Year 2002.

Annex I provides a complete listing of the participants that attended CORE's RES workshops and courses. The listing includes the individual's contact information, title, and organization.

II. METHODOLOGY

The SARI/Energy Program was started in the year 2000. The Rural Energy services (RES) Training Program component of the SARI/Energy Program officially began in February 2001. During the first 18 months (January 2001 - June 2002) of the RES Program a number of courses and workshops were completed by CORE International. In order to fulfill the requirements of the Survey Task Order, CORE developed a methodology to conduct and analyze a comprehensive survey covering all 105 participants in the RES Program. This section summarizes the key elements of our methodology.

A. SURVEY DESIGN

As the first step towards this exercise, CORE International developed a survey instrument for distribution to all of the participants who attended RES activities. As mentioned previously, CORE, as a matter of routine, conducts an evaluation survey at the end of workshop/course. Therefore, for the six activities covered under this participant survey, CORE already had evaluations completed by workshop/course attendees. These evaluations provide key insights that were valuable in designing the survey instrument for this participant survey. The survey instrument designed by CORE was reviewed, commented on, and approved by both EGAT and the SARI/Energy management team based in the USAID Mission in Delhi. The survey was deliberately designed to be short with the main objective being to document concrete examples where participants have used their knowledge gained through their attendance at one or more of the workshops and training courses designed and implemented by CORE. In addition to documenting the specific knowledge gained at the event that the participants were able to apply in their country, the survey also documents results, benefits, and impacts affected in their country as result of their participation in one or more of the RES Program events.

A second objective of the survey was to determine any cross-cutting issues and themes that may offer USAID valuable information in designing future rural energy services training activities.

The design of the survey was carefully crafted to maximize the quality of information that would provide CORE the best opportunity to link the results/impacts of the participants' attendance at the various events with the intended objectives of the RES Training Program. Based on a number of iterations three key questions were included in the survey and were carefully worded to ensure clarity, focus, and brevity.

1. ***How were you able to share knowledge learned in your program with other individuals?***

2. ***Describe one or more occasions where you were able to apply your knowledge.***

3. ***What was the positive impact and result that occurred in your organization because you were able to share your knowledge or apply your knowledge and how does that result relate to the objectives of the SARI/Energy Program?***

The survey questions were designed to draw out from the respondents how they applied the knowledge gained from the program they attended. It encouraged participants to document actual success stories that resulted from their applying the knowledge gained during the RES activity. The survey did not focus on the workshop/course contents, course book, experience and capability of the trainers, logistics, venue facilities, and other event-specific issues, that are covered under the individual workshop/course evaluations conducted by CORE at the end of each event. Rather, the survey focused on documenting the results achieved and how those results relate to the objectives of the SARI/Energy Program.

B. PROGRAMS COVERED UNDER THE SURVEY

The survey covered a total of 6 separate activities conducted by CORE International during the reporting period. The following is a description of each of the RES Training Programs. The description includes key issues of the program, time frame, the number of attendees funded by USAID, and a brief synopsis of the training event.

1. *Workshop 5.1 (2001): Meeting Rural Electric Needs in South Asia,* Dhaka, Bangladesh, May 8 - 10, 2001

Key Issues
Rural Electricity Planning and Delivery Models

Sector
Rural Electrification and Rural Energy

Timeframe
3 days

Number of Participants
Twenty five

Description
The primary objective of the workshop was to share a proven and successful rural electrification program in Bangladesh with the workshop participants. The Rural Electrification Board (REB) in Bangladesh cosponsored this event. During the three-day period, the REB and the PBS management provided extensive briefings to the participants on all aspects of rural energy planning and delivery including engineering, financing, and management aspects. A total of 16 different detailed presentations were made by the REB/PBS managers followed by discussions on various aspects of the RE program. In addition, the participants visited three significantly different PBSs to gain a hands-on understanding of the rural cooperative model in Bangladesh. All of the papers and documents were put on the SARI/Energy web site in order to provide others with the opportunity to gain information on the successful REB/PBS Rural Energy Model.

2. *Course 5.1: Creating the Environment for the REUs - Models for RE in South Asia,* Dhaka, Bangladesh, February 2 - 6, 2002

Key Issues
Rural Electricity Issues and REU Models

Sector
Rural Energy

Timeframe
5 days

Number of Participants
Twenty three

Description
The primary objective of the course on "Creating the Environment for the REUs --Models for RE in South Asia" was to present the modalities of creating REUs, their relationship with existing utilities, development and management of REUs from infancy to maturity, financing, engineering, operating and maintaining REUs. The course aimed to provide potential

implementers/managers, regulators and policy makers with a thorough understanding of different structures of REU programs, the implications of geographical, cultural and social diversity on the structure and functioning of REUs to meet the rural consumers expectations and aspirations.

3. *Course 5.2: Regulating Rural Electric Utilities (REUs) and Off-grid Utility Systems*, Kathmandu, Nepal, December 3 - 8, 2001

Key Issues
Electric Utilities, Off-Grid Systems

Sector
Rural Energy

Timeframe
6 days

Number of Participants
Sixteen

Description
The primary objective of the course on "Regulating Rural Electric Utilities and Off-Grid Power Systems" was to provide insight into various REU models and the need to modify existing laws and regulations for providing the right kind of environment for REUs to flourish. The course provided regulatory policy developers and existing and potential future regulators and their key staff with a thorough understanding of how to regulate and establish tariff for both REUs and off-grid utility systems. Consequently, the REUs that purchase bulk electricity and have franchise rights can effectively supply power regularly, implement electricity tariff, and be accountable for their performance to their consumers.

4. *Course 5.3: Structuring and Implementing Rural Energy Program*, Colombo, Sri Lanka, October 29 - November 3, 2001

Key Issues
Rural Electrification Programs

Sector
Rural Energy

Timeframe
6 days

Number of Participants
Sixteen

Description
The primary objective of the course on 'Structuring and Implementing Rural Energy Planning' was to train the trainers on rural energy planning concepts and methods, the decentralized planning process of rural energy planning at rural/local level and how it is different from top down approach. The course aimed to equip the trainers with various aspects on rural energy options, technologies, economics of energy supply, etc., in simple terms easily understood by local planners. The trainers would then train the energy planners at district/block/panchayat level in local language on how to plan for rural energy and implement the planned projects to achieve the objective of providing energy to rural mass on sustainable basis.

5. Course 5.4: Enhancing the Environment for Small Electric Power Generation, Kathmandu, Nepal, September 3 - 8, 2001

Key Issues
Small Power Generation Systems

Sector
Rural Energy

Timeframe
6 days

Number of Participants
Seventeen

Description
The primary objective of the course was to introduce the upper level management of Rural Electric Utilities (REUs) in the South Asia Region, independent power producers, and regulatory officials to conditions that

could create the right environment for private sector developers to construct and operate small power generation facilities. A detailed analysis of the technical issues related to distributed small power generation, system reliability, renewable energy technology (hydropower, wind power and biomass based power), negotiating Agreements (Power Purchase Agreement, Land Lease Agreements, Fuel Supply Agreements, etc.), needs and methods of electricity wheeling and banking, financing of small generation and other related issues were presented. The course helped in facilitating a greater understanding among utility officials, small power producers and policy makers of the interplay of all the issues involved in promoting, implementing and harnessing fruitfully the power generated from small power generation facilities to mitigate the power shortage and provide power to the rural society on a sustainable basis for their economic and social betterment.

6. *Workshop 5.1 (2002): Workshop on the Bangladesh Rural Electrification Model - Visit By the Indian Delegation to REB and Selected PBSs,* Dhaka, Bangladesh, April 8 - 10, 2002

Key Issues
Rural Electrification Models

Sector
Rural Energy

Timeframe
3 days

Number of Participants
Six

Description
The objective of this workshop was to provide an opportunity to a selected number of Indian rural energy planners to visit Bangladesh and hold discussions with the Rural Electrification Board (REB) and the rural distribution utilities (PBSs) on specific elements of the Bangladesh rural electrification program. Through this one on one discussion and site visits to selected PBSs, the Indian officials were able to gain first-hand experience in the process of designing and implementing successful rural electrification schemes.

CORE sought the highest possible response rate from the surveys. Each survey was personalized with the participant's address, title, program name, dates of the program activity, and a deadline for the submittal of the information. An example of the survey tool is provided in Annex II.

After the initial electronic mailing of the surveys, CORE allowed a reasonable time for receiving responses. After this reasonable time, CORE followed up with various participants via telephone and fax in order to increase the overall response rate. In addition, CORE International's SARI/Energy Office in New Delhi, India also followed up with many of the participants. Many of the participants could not be contacted due to their position changes and transfers to other locations and entities. The response rate from the participants exceeded 25% of those surveyed. This response rate was reported to USAID and was accepted as exceeding the expectations of USAID.

This report summarizes the results of the survey including common themes, true success stories which can be credited in whole or in part to the participants' attendance at an RES event, as well as a summary of the key areas where results can be shown to support the SARI/Energy Program objectives.

C. SURVEY ANALYSIS

In evaluating the information received in the participant survey responses, CORE International followed a parallel approach with two specific elements in order to analyze the data. The first element focused on "de facto" reporting of those comments that clearly demonstrated that the participants in the various RES workshops/courses significantly benefited from new information and knowledge gained as a result of their participation in the program. Specifically, under this element, CORE documented specific instances that provide the evidence that the participants both shared the knowledge with their colleagues, as well as applied specific elements of the information/knowledge to their "day-to-day" job responsibilities. As part of the second element of CORE's analysis of the survey responses, CORE documented specific instances whereby the participants in the RES program events initiated certain activities beyond just sharing the information with their colleagues or applying the knowledge in their jobs. These included specific evidence of activities such as -- any organization changes, initiation of new mechanisms for regional energy cooperation, specific adaptation of a "best practice", impetus to either reform current policy and regulatory practices or initiate new policies to increase rural energy access, and any regional institutional linkages developed in order to foster regional cooperation.

In addition, CORE conducted an analysis to relate the findings from the survey responses to the SARI/Energy Strategic Objective (SO) and Rural Energy Services

Training Program Intermediate Results (IRs). This exercise was conducted to specifically document the extent to which the RES activities and the participants' attendance in these activities provide direct evidence of the positive impact of the SARI/Energy RES Program in the South Asia Region.

III. SURVEY RESULTS

This section presents a summary of the survey results based on an analysis of the raw data received from the participants. The results are presented in two different steps:

1. Common Cross-cutting Themes Observed in the Survey Responses and Anecdotal Evidence Provided through Excerpts of the Responses from the Various Activities
2. Analysis of the Responses with Respect to SARI/Energy RES Program Intermediate Result (IR5) and CORE International's Intermediate Results (IRs)

A. COMMON THEMES WITHIN THE RESPONSES

CORE reviewed all of the responses and conducted an analysis of the raw data received from the participants. The review and analysis of the data included in the responses indicated certain themes that were common across the survey responses. The most common themes include the following:

1. **Sharing of knowledge with colleagues**
2. **Demonstration of the participants' understanding of the SARI/Energy RES Program**
3. **Amending power development policies, five year programs, and other energy sector documents**
4. **Demonstrations of a newly acquired knowledge relative to rural energy policies, practices, procedures, and technologies, as applied by other countries**
5. **Examples of human and institutional capacity improvements following the participants' attendance at an RES event**
6. **Appreciation for better performance of other South Asian countries in a given rural energy sub-sector**

These common themes were cross-cutting across all SARI/Energy RES activities and were demonstrated through the responses of individuals from each of the six countries. Below, CORE provides excerpts from the respondents which best demonstrate each of the six themes.

Theme 1: Sharing of Knowledge

Nearly each respondent documented sharing specific components of their RES events with their colleagues, superiors, or private sector counterparts. The respondents documented that they shared their knowledge through numerous venues including informal discussions, especially arranged group meetings,

meetings arranged with superiors, and formal presentations. The following comments by representatives of India and Nepal highlight this theme.

Workshop 5.1 (2002): Workshop on the Bangladesh Rural Electrification Model - Visit by the Indian Delegation to REB and Selected PBSs, CORE International, Inc.

My visit to Bangladesh was very educational. I briefed the Chairmen of the Central Electricity Authority and the Ministry of Power about the salient points. I also shared the experience with my colleagues. They all appreciated the efforts of the Government of Bangladesh in the effective electrification of rural areas. I submitted a detailed report on my visit to the Government of India. Public participation in the management of the distribution system in rural areas is being considered as an effective alternative.

Mr. R. K. Verma
Director
Central Electricity Authority
India

Course 5.1: Creating the Environment for the REUs - Models for RE in South Asia, CORE International, Inc.

I had given a lecture in Power Sector Reform at one of the training courses conducted in the Training Center that included ideas for the SARI training relevant to Rural Electrification models in Bangladesh. The thematic ideas of the training course are proposed to be included in different training courses which will be conducted in the Training Center of NEA.

Mr. Prakash Jana Rana
Chief, NEA Training Center

Nepal Electricity Authority
Nepal

Course 5.1: Creating the Environment for the REUs - Models for RE in South Asia, CORE International, Inc.

We organized a seminar with top Panchayet functionaries (elected peoples' representatives for local self Government) from all the Districts of the State where the experiences of the Bangladesh model of electricity distribution was discussed with a view to impress upon them the importance of local participation, as well as charging them for energy consumed to ensure proper maintenance, supply of reliable and quality power, and future expansion of distribution. Similar workshops/ discussions were held in other districts.

Mr. Trilochen Singh
Managing Director
West Bengal Rural Energy Development Corporation
India

Course 5.4: Enhancing the Environment for Small Electric Power Generation, CORE International, Inc.

I had an opportunity to participate in a seminar organized by CORE on "Enhancing the Environment for Small Scale Electric Power Generation", September 3-8, 2001 in Nepal. I have been able to share my experience as a private developer with other SARI/E members. Specifically, the process of Power Purchase Agreement (PPA) was interesting to all other participants.

Mr. Guru Prasad Neupane
Managing Director
Arun Valley Hydropower Development Co. (Pvt.) Ltd.
Nepal

Theme 2: Demonstrating Understanding of the SARI/Energy RES Program

Many respondents documented a clear understanding of the SARI/Energy Program's objectives, writing in terms of the mutual benefits that could be achieved through cooperation between the countries in the region.

Course 5.1: Creating the Environment for the REUs - Models for RE in South Asia, CORE International, Inc.

All of the countries in South Asia have a common social, cultural, and economic status. The common goal of these countries is towards poverty alleviation through infrastructure development and reforms through technological changes. The SARI/E program may accelerate the proper implementation of power sector reform in these countries through mutual exchange of ideas for the fulfillment of their objectives. Rural Electrification approaches in different South Asian countries have had a very diverse approach and their results have also been successful or unsuccessful based upon their implementation models. The SARI/E approach for regional initiative for energy can definitely help in identifying a better approach towards rural electrification in these countries through the sharing of their experiences.

"The SARI/E approach for regional initiative for energy can definitely help in identifying a better approach towards rural electrification in these countries through the sharing of their experiences."

Mr. Prakash Jana Rana
Chief, NEA Training Center
Nepal Electricity Authority
Nepal

Course 5.1: Creating the Environment for the REUs - Models for RE in South Asia, CORE International, Inc.

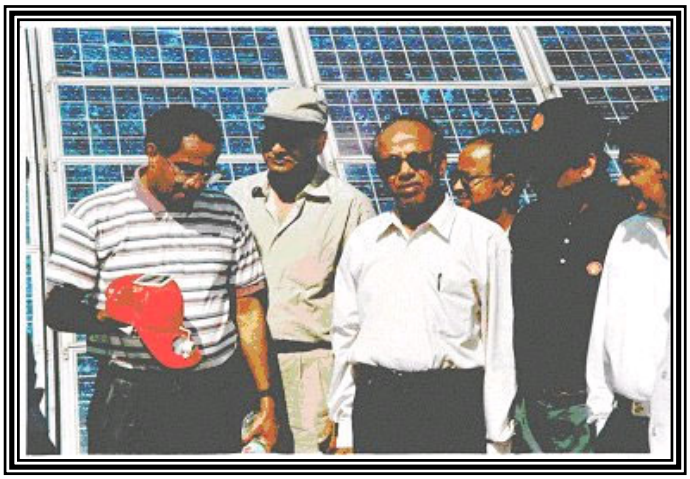
Objectives of SARI are very well received and there is now widespread awareness and feeling that distribution reforms are absolutely necessary to ensure proper maintenance, supply of reliable and quality power, and future expansion of power distribution.

"Objectives of SARI are very well received and there is now widespread awareness and feeling that distribution reforms are absolutely necessary to ensure proper maintenance, supply of reliable and quality power, and future expansion of power distribution."

Mr. Trilochen Singh
Managing Director
West Bengal Rural Energy Development Corporation
India

Workshop 5.1 (2001): Meeting Rural Electric Needs in South Asia, CORE International, Inc.

BREA was "soft-launched" about two months back and was attended by most of the key "players" in the Renewable Energy sector in Bangladesh. BREA has received a commitment from the Honorable Minister to receive support from the Government of Bangladesh, relating to promotion and dissemination of Renewable Energy Projects in the country, including finalization and ratification of a Renewable Energy Policy for Bangladesh, which has been awaiting acceptance for over a year (it is currently in draft form). Any possible support by SARI/Energy (RES) to BREA would be highly appreciated, especially in organizing joint workshops, seminars, and also in lining up international finance to disseminate RE projects in Bangladesh (such as Greenhouse Gas/Energy Conservation Mitigation Projects). It will especially be appreciated if SARI/E can promote any cooperation between the Indian Renewable Energy Development Agency - IREDA - and BREA. In absence of an 'apex' body like IREDA, the newly established BREA, although a private initiative, has set a goal of playing a similar role to the one IREDA fulfills in India; to promote, disseminate, and organize international funds for Renewable Energy Technologies/Projects.



"It will especially be appreciated if SARI/E can promote any cooperation between the Indian Renewable Energy Development Agency - IREDA - and BREA. In absence of an 'apex' body like IREDA, the newly established BREA, although a private initiative, has set a goal of playing a similar role to the one IREDA fulfills in India; to promote, disseminate, and organize international funds for Renewable Energy Technologies/Projects."

Dr. Khursheed Ul-Islam
Partner
ARMCO
Bangladesh

Dr. Khursheed Ul-Islam
Partner
ARMCO
Bangladesh

Course 5.3: Structuring and Implementing Rural Energy Program, CORE International, Inc.

The results below were the outcomes of the objectives that were planned by the South Asia Regional Initiative for Energy:

- *The enhanced knowledge has been utilized in elaborating the effect of such events to the provincial level authorities and in managing to allocate more*

co-funding arrangements from the Provincial Authority with the existing funding mechanisms such as ESD/World Bank.

- *Conducted a close coordination between the renewable energy planers, implementing NGOs, consumer CBOs, RE Suppliers/manufacturers, and Consumers.*

- *Managed to develop more effective monitoring indicators in order to monitor the progress of the provincial council supported projects.*

- *Managed to establish more effective rapport and maintain dialogues with government sector, Private sector, and National NGOs that are engaged in the RE program.*

- *Managed the formulation of local energy planning cells at village level.*

"The enhanced knowledge has been utilized in elaborating the effect of such events to the provincial level authorities and in managing to allocate more co-funding arrangements from the Provincial Authority with the existing funding mechanisms such as ESD/World Bank."

"Managed to develop more effective monitoring indicators in order to monitor the progress of the provincial council supported projects."

Mr. D.M. Senaratne
Assistant Secretary
Chief Ministry, Provincial Council – Ratnapura
Sri Lanka

- *Due to participation in the training courses, data collection and analysis techniques in the province has been improved and effectively strategized.*

- *Provided inputs and necessary coordination in order to conclude the five-year Provincial Energy plan.*

- *Facilitated to form a Provincial level Energy Forum.*

"Facilitated to form a Provincial level Energy Forum."

Mr. D.M. Senaratne
Assistant Secretary
Chief Ministry, Provincial Council – Ratnapura
Sri Lanka

Mr. D.M. Senaratne
Assistant Secretary
Chief Ministry, Provincial Council – Ratnapura
Sri Lanka

Theme 3: Amending Power Development Policies, Five Year Programs, and Other Energy Sector Documents

Respondents to the survey described examples where policy changes were being made, policy documents improved, or internal policies enhanced as a result of their participation in SARI/Energy Program RES activities.

Course 5.3: Structuring and Implementing Rural Energy Program, CORE International, Inc.

The de-centralized rural planning concept has always been appreciated and encouraged in Bhutan. Most of the planning processes in Bhutan are based on a bottom-up approach instead of top-down approach. The course has given us deeper understanding of such planning concepts, particularly in terms of providing electricity to rural communities.

All our plans are formulated based on extensive consultations with local communities at all levels, beginning from grass-roots level of villagers to block levels to district levels. The needs and preferences of local communities have always been given priority in all aspects of rural planning. The institutional capacities of the local bodies are continuously strengthened to meet greater challenges in line with de-centralized rural planning process.

Whenever we receive applications for energy demands, we first distinguish between the 'demands' and the 'actual requirements'. This results in saving in terms of both investment and energy. Unnecessary investments not

"Most of the planning processes in Bhutan are based on a bottom-up approach instead of a top-down approach. The course has given us deeper understanding of such planning concepts, particularly in terms of providing electricity to rural communities"

Mr. Karma Tshering
Executive Engineer, Planning & Coordination Division
Department of Energy, Ministry of Trade & Industry
Bhutan

only waste energy in terms of substation and line losses, but also drain out most of the resources. The course has made me understand these facts.

We have also recently established a new Division, namely the Renewable Energy Division under the Department of Energy to plan, coordinate, and develop renewable energy, essentially, to provide electricity to remote and rural communities.

Mr. Karma Tshering
Executive Engineer, Planning & Coordination Division
Department of Energy, Ministry of Trade & Industry

Bhutan

"We have also recently established a new Division, namely the Renewable Energy Division under the Department of Energy to plan, coordinate, and develop renewable energy, essentially, to provide electricity to remote and rural communities."

Mr. Karma Tshering
Executive Engineer, Planning & Coordination Division
Department of Energy, Ministry of Trade & Industry
Bhutan

Theme 4: Demonstrating Newly Acquired Knowledge Relative to Energy Policies, Practices, Procedures, and Technologies, as Applied by Other Countries

An important component of the SARI/Energy Program is sharing best practices in energy sector development, reform, and efficiency improvements. The RES Program mechanism allows for country representatives to attend meeting, workshops and conferences to expose them to these best practices worldwide. In their survey responses, participants cited examples of best practices from both the South Asia region as well as other regions such as Africa. Some respondents noted that it was the first time they had ever been exposed to learning about the practices and the benefits that could be achieved.

Course 5.1: Creating the Environment for the REUs - Models for RE in South Asia, CORE International, Inc.

Through the site visits I had learned about the operation of the solar as well as the distribution/rural electrification system in Bangladesh. In Bhutan, for the solar system, we intend to adopt the type of working system Grameen Shakti has adopted. The training of solar technicians has already been completed by the Department of Energy and these trainers will further train the community to operate and maintain the

"In Bhutan, for the solar system, we intend to adopt the type of working system Grameen Shakti (Bangladesh) has adopted."

Mr. Pradeep Mani Pradhan
Project Manager
Department of Power, Ministry of Trade & Industry
Bhutan

system so that it becomes sustainable in the long run.

Mr. Pradeep Mani Pradhan
Project Manager
Department of Power, Ministry of Trade & Industry
Bhutan

Workshop 5.1 (2001): Meeting Rural Electric Needs in South Asia, CORE International, Inc.

" . . a very encouraging and exciting impact has occurred in this part of the country. However, more communication and orientation with local people is needed. I am trying to implement this in the Lalitpur district of Nepal, and in the western part of Nepal."

Mr. Tirth Nath Thakur
Chief
Small Hydropower & RE Department
Nepal Electric Authority

I have tried to utilize the knowledge and experience gained in the workshop to improve methods in areas where the distribution works are already being handed through to consumer service (Lamjung Districts). As this method provides employment to local people and provides a feeling that they are part of the core group responsible for the development of their region, a very encouraging and exciting impact has occurred in this part of the country. However, more communication and orientation with local people is needed. I am trying to implement this in the Lalitpur district of Nepal, and in the western part of Nepal.

Mr. Tirth Nath Thakur
Chief
Small Hydropower & RE Department
Nepal Electric Authority
Nepal

Workshop 5.1 (2001): Meeting Rural Electric Needs in South Asia, CORE International, Inc.

The workshop, entitled "Meeting Rural Electricity Needs in South Asia", held in Dhaka, Bangladesh from May 8 - 10, 2002, helped me quite a lot in formulating the Tenth Five-Year Plan (2002/03-2007/08) of Nepal which related to the electricity sector. This plan included many rural electrification programs. We have also

"The workshop, entitled "Meeting Rural Electricity Needs in South Asia", held in Dhaka, Bangladesh from May 8 - 10, 2002, helped me quite a lot in formulating the Tenth Five-Year Plan (2002/03-2007/08) of Nepal. We have also proposed a study project, which will conduct a study on "how the rural people can be brought into the main stream of electricity development."

Mr. Dilli B. Singh
Senior Divisional Engineer
Department of Electricity Development
Nepal

proposed a study project, which will conduct a study on "how the rural people can be brought into the main stream of electricity development". So, the Bangladeshi model of rural electrification (i.e., electrification through cooperative) would be a better option which will be studied first and then, if the study suggests, it will be incorporated in the next annual plan. The Tenth Five-Year Plan (2002/03-2007/08) will be finalized in couple of months.

Mr. Dilli B. Singh
Senior Divisional Engineer
Department of Electricity Development
Nepal

Course 5.4: Enhancing the Environment for Small Electric Power Generation, CORE International, Inc.

When we are discussing an income generating package for target groups in and around the project area, we were able to meet their needs by forming the user's Group (UG). We, the Annapurna Group Pvt. Ltd., were able to reorganize its organizational structure which could now be easily accessible to the local people. I think one of the objectives of the SARI/Energy is to establish technologies which must benefit the local people. We are now able to make the participation of the local people in our project to meet their basic needs.

"I think one of the objectives of the SARI/Energy is to establish technologies which must benefit the local people. We are now able to make the participation of the local people in our project to meet their basic needs."

Mr. Arjun Adhikari
Environmental Officer
Annapurna Group (P) Ltd.
Nepal

Mr. Arjun Adhikari
Environmental Officer
Annapurna Group (P) Ltd.
Nepal

Theme 5: Highlighting Human and Institutional Capacity Improvements

A recurring theme in many of the responses was that the participants benefited at the personal level from the knowledge gained during an RES activity, which in turn benefited their organizations as a whole through their application of that knowledge.

Workshop 5.1 (2001): Meeting Rural Electric Needs in South Asia, CORE International, Inc.

ARMCO has recently played a key role as key member of a core group of a private-sector initiative to create, motivate, and accelerate Government support for dissemination of Renewable Energy in Bangladesh, comprising of 4 "major players" in Bangladesh in the PV Electrification of Rural Areas - Rahimafrooz, Siemens (Bangladesh) Ltd., First Bangladesh Solar Technologies Ltd., and Associated Resources Management Co (ARMCO), which has led to formation of the "Bangladesh Renewable Energy Association" (BREA). Mr. Niaz Rahim of Rahimafrooz Ltd. is the President and Dr. Engr. K. Islam, ARMCO, is the Vice President of BREA.

Dr. Khursheed Ul-Islam
Partner
ARMCO
Bangladesh

"ARMCO has recently played a key role as key member of a core group of a private-sector initiative to create, motivate, and accelerate Government support for dissemination of Renewable Energy in Bangladesh"

Dr. Khursheed Ul-Islam
Partner
ARMCO
Bangladesh

Course 5.1: Creating the Environment for the REUs - Models for RE in South Asia, CORE International, Inc.

We have established a National Level Energy Network to coordinate activities between the private sector and organizations such as Solar Industries Association, Government Institutions such as CEB, and Civil Society Institutions such as Micro-financing Institutions, in order to create better understanding which will benefit the sector. The purpose of the National Energy Network is to create an enabling environment for the networking organizations to interact and work together for the promotion and adoption of appropriate, viable energy services and options. Organizations now linked with the National Energy Network include:

"We have established a National Level Energy Network to coordinate activities between the private sector and organizations such as Solar Industries Association, Government Institutions such as CEB, and Civil Society Institutions such as Micro-financing Institutions, in order to create better understanding which will benefit the sector."

Asoka Abeygunawardena
Program Coordinator
Energy Forum
Sri Lanka

1) *Energy Forum*
2) *Energy Conservation Fund*
3) *NERD Center*

4) *ITDG*
5) *Sarvodaya SEEDS*
6) *IDEA*
7) *Solar Industries Association*
8) *Micro-hydro Developers Association*

And provincial energy networks including: Southern, Uva, Sabaragamuwa, North Central, Northwestern, North and East; as well as energy sector researchers, the Federation of Electricity Consumer Societies, CBOs in Off-grid areas, Shakthi Viskam Students Clubs, and Journalists.

Asoka Abeygunawardena
Program Coordinator
Energy Forum
Sri Lanka

Course 5.2: Regulating Rural Electric Utilities (REUs) and Off-Grid Utility Systems, CORE International, Inc.

Knowledge gained during the program was used in structuring a new project, "Renewable Energy for Rural Economic Development Project" (REREDP), for Sri Lanka with the prime objective of rural economic development. We also look forward to deregulation in many areas to remove obstacles for the private sector initiatives to work freely where the market forces will take the lead. This was argued at length during SARI workshop in Nepal.

Mr. R.A. Dassanayake
Project Officer
DFCC Bank
Sri Lanka

"Knowledge gained during the program was used in structuring a new project, "Renewable Energy for Rural Economic Development Project" (REREDP)."

Mr. R.A. Dassanayake
Project Officer
DFCC Bank
Sri Lanka

Course 5.3: Structuring and Implementing Rural Energy Program, CORE International, Inc.

(As a result of the course) I was able to help villagers in formulating Village Hydro Projects financed by DFCC Bank (where I work). This has been especially helpful in formulating the financing plan of the projects.

Mr. Saminda Goonasekara
Senior Project Officer
DFCC Bank
Sri Lanka

"I was able to help villagers in formulating Village Hydro Projects financed by DFCC Bank."

Mr. Saminda Goonasekara
Senior Project Officer
DFCC Bank
Sri Lanka

Theme 6: Acknowledging and Appreciating Better Performance of other South Asian Countries in a Given Rural Energy Sub-sector

One of the most interesting results to come out of the survey responses was the participants' acknowledgement and appreciation for the performance of other South Asian countries relative to a given rural energy planning area. The respondents often compared their own country's performance in relation to other South Asian nations' and were encouraged that improvements could be made.

Workshop 5.1 (2001): Meeting Rural Electric Needs in South Asia, CORE International, Inc.

In the Workshop, REB presented some of their observations and suggestions for further future dissemination of SPV Projects for electrification of other remote rural areas of Bangladesh, which were also discussed in detail by other participants in the Workshop. Some key feedbacks/observations presented and discussed in the workshop from which we benefited include the exchange of operating experiences in the rural PV/Renewable Energy sector with our neighboring country (India) participants in the workshop relative to SPV Electrification of Rural areas. India is already well ahead in this sector.

"Some key feedbacks/observations presented and discussed in the workshop from which we benefited include the exchange of operating experiences in the rural PV/Renewable Energy sector with our neighboring country (India) participants in the workshop relative to SPV Electrification of Rural areas."

Dr. Khursheed Ul-Islam
Partner
ARMCO
Bangladesh

In future project designs, such experiences (Battery and Maintenance problems - their solutions in case of PV-DC Systems and also the necessity of implementing PVAC Small Rural Central Power Plants - PV-Diesel/Bio-mass, PV-Wind Hybrid-Systems) will be taken into consideration.

Dr. Khursheed Ul-Islam
Partner
ARMCO
Bangladesh

Workshop 5.1 (2002): Workshop on the Bangladesh Rural Electrification Model - Visit by the Indian Delegation to REB and Selected PBSs, CORE International, Inc.

We are in the process of preparing a white paper for power sector reforms in Maharashtra in the distribution sector. The visit to Bangladesh served as a base for designing a possible model for rural areas.

To find the best alternative, a committee has been appointed to go into modalities for reforms in rural areas. The committee will, I am sure, consider the Bangladesh experience, among other alternatives.

"To find the best alternative, a committee has been appointed to go into modalities for reforms in rural areas. The committee will, I am sure, consider the Bangladesh experience, among other alternatives."

Mr. Ravi Budhiraja
Principal Secretary (Energy)
Energy Department, Government of Maharashtra
India

Mr. Ravi Budhiraja
Principal Secretary (Energy)
Energy Department, Government of Maharashtra
India

Course 5.2: Regulating Rural Electric Utilities (REUs) and Off-Grid Utility Systems, CORE International, Inc.

Our company, Butwal Power Company Limited, is carrying out electrification at the remote hilly scattered villages near our own power plants and transmission line routes on the principle of social development activities. The returns from it against investment are negligible. Therefore, the concept of creating co-operatives can be implemented selling the energy on reasonable bulk rate to the pocket village cooperatives.

Mr. Ram Bhakta Karki
Director, Operations Department

Butwal Power Company
Nepal

The full documentation of all of the participants' responses can be found in Annex III.

From the major themes described above, it is clear that the participants that responded to the survey greatly benefited from their participation in the RES activities. In addition to individual/human capacity building, the respondents documented many examples where their organizations as a whole benefited from their participation due to the application of their knowledge gained during an RES program activity. Several specific examples where policy changes were made as a result of an individuals' participation in an event were also cited. Many participants also highlighted the importance of the informal meetings that they were able to have with both their own country officials as well as South Asian country counterparts during RES activities and events.

Even though, given the scope of this activity, personal interviews with the participants were not possible the themes section of this report clearly demonstrates that there are examples of results from each country and that each country in the SARI/Energy RES Training Program benefited from its participation in SARI-sponsored RES activities.

B. RELATIONSHIP OF THE SURVEY RESULTS TO SARI/ENERGY RES PROGRAM INTERMEDIATE RESULT (IR5) AND RESULT INDICATOR AND CORE RESULT RESULT INDICATORS

The SARI/Energy program collaborates with other donor agencies at three levels: (i) technical assistance, (ii) capacity-building, and (iii) policy dialogue. The key multilateral donors with relevant programs in South Asia are the World Bank and the Asian Development Bank (ADB). SARI/Energy has been working closely with these donors in assisting the countries in the region advance their energy sector development strategies. The central objective of the SARI/Energy Program is to facilitate regional dialogue and information exchange among the South Asian countries in order to enhance overall institutional capacity, accelerate transfer of best practices and promote regional energy cooperation and trade. The program has been designed to achieve this overall objective through a set of specific interventions as follows:

1. Create institutional capacity to make decisions supporting sustainable energy development;
2. Increase private sector participation in, and civil society support for, energy development; and

3. Create and/or strengthen regional forums, networks and associations for cooperation and advocacy on energy development.

The RES Program is designed as an instrument to leverage the SARI/Energy Program with regional activities sponsored by other donors, industry groups, and the private sector in fostering the above overall SARI/Energy objective

The USAID Intermediate Result (IR5) for the SARI/Energy RES program is "***Regional adaptation of best practices that lead to improved rural energy services".*** The USAID Result Indicator (RI1) for the IR5 is as follows:

"USAID Result Indicator 1 - Number of best practices in rural energy delivery adopted in one or more countries"

CORE International, as part of its Work Plan, further subdivided the USAID Result Indicator 1 into the following specific CORE Result indicators:

> ***CORE Indicator 1:*** *Number of best practices regionally shared which offer the greatest potential for transfer to promote increased availability of commercial energy services to rural and/or lower income consumers.*
>
> ***CORE Indicator 2:*** *Number of new priority plans for increased rural electrification forwarded by regional governments.*
>
> ***CORE Indicator 3:*** *Number of (percent increase) increased commercial energy services provided to rural and/or lower income consumers.*
>
> ***CORE Indicator 4:*** *Increased means for information exchanges for promotion of best practices in rural energy services and increase in public information availability through print media and other mechanisms.*
>
> ***CORE Indicator 5:*** *Number of trained trainers to transfer training skills to increase the availability of commercial energy services to rural and/or lower income groups throughout the region.*

Although the present participant survey did not allow individual face-to-face interviews with participants, CORE International has attempted to conduct an analysis of the survey responses with respect to USAID and CORE International's IRs listed above. A summary of the results is provided in Exhibit II.

The information provided by the survey respondents supports a key need in the region -- enhancing institutional capacity through information transfer and new skills that the participants have taken back to their respective places of work in their home countries. There are other situations where the participants have adapted one or more best practices that they were exposed to in one or more of the RES events that they participated in as a result of SARI/Energy sponsorship.

The survey responses include many other examples of transfer of best practices that have directly resulted from one or more of the RES activities sponsored by the SARI/Energy Program.

EXHIBIT II: COMPOSITE SUMMARY OF SURVEY RESPONSES AND RELATIONSHIP TO SARI/ENERGY RES RESULT INDICATOR (RI1) AND CORE INTERNATIONAL RESULT INDICATORS

	SARI/ENERGY RES - USAID RESULT INDICATOR (RI1) AND CORE INTERNATIONAL RESULT INDICATORS	PERCENT OF TOTAL RESPONSES SUPPORTING THE RESULT INDICATORS
	USAID RES RESULT INDICATOR (RI1)	
1.	USAID Result Indicator 1 - Number of best practices in rural energy delivery adopted in one or more countries	80-85% of the participants reported making attempts to adapt best practices for RES in their countries: • Adaptation of REB/PBS elements • Decentralized SHSs based on Grameen Shakti Model • Expansion of the Sri Lanka ESD Project to the new RERED Project • Establishment of rural energy cells in Maharashtra (India), Nepal and Bhutan • Establishment of a National Energy Information Network by the Energy Forum in Sri Lanka • Managed to develop more effective monitoring indicators in order to monitor the progress of the provincial council supported projects • Many other examples
	CORE INTERNATIONAL RESULT INDICATORS	
1.	Number of best practices regionally shared which offer the greatest potential for transfer to promote	100% of the participants are involved in developing new RES programs and projects with the assistance of donors

	potential for transfer to promote increased availability of commercial energy services to rural and/or lower income consumers	
2.	Number of new priority plans for increased rural electrification forwarded by regional governments	65%of the participants have confirmed that they are involved in rural electric planning as part of national energy planning including regional/local participation at the consumer level
3.	Number of (percent increase) increased commercial energy services provided to rural and/or lower income consumers	While a percentage cannot be determined, what is more illustrative of the success of the SARI/Energy RES program is that successful models for rural energy services are being customized by the participants for their own situation as indicated throughout the responses. In this sense SARI/Energy RES Program is directly contributing to accelerating the planning for rural energy delivery.
4.	Increased means for information exchanges for promotion of best practices in rural energy services and increase in public information availability through print media and other mechanisms	100% of the participants confirmed that this program has been very beneficial to them in providing information and means for exchange of information rural electrification best practices in the Region and in other countries outside of the region. The SARI/Energy web site has been a key instrument of success as reported by the participants.
5.	Number of trained trainers to transfer training skills to increase the availability of commercial energy services to rural and/or lower income groups throughout the region	A total of 115 participants received training under the six events conducted by CORE during the period January 1, 2001 - June 30, 2002. Many (over 85%) of the respondents to the survey have confirmed that they have applied some of the knowledge and training received in day-to-day decision making and all of the survey respondents (100%) indicated that they shared the knowledge with their colleagues and superiors. In most cases, however, there has been a direct enhancement of the institutional capacities of the organizations based on training provided under the RES Program, as reported by the respondents. In some cases, such the Energy Forum

		in Sri Lanka, there has been a direct enhancement in the content and quality of RES training as reported by the officials of the Forum.

Another set of surveys will be conducted in July 2003 and will cover additional RES activities which are conducted after April 2002.

ANNEX I: LIST OF ALL SARI/ENERGY RURAL ENERGY SERVICES PARTICIPANTS

ANNEX I: LIST OF ALL SARI/ENERGY RURAL ENERGY SERVICES PARTICIPANTS

1. Workshop 5.1 (2001): Meeting Rural Electric Needs in South Asia - May 8 - 10, 2001 - Dhaka, Bangladesh

1. **Md. Nurul Absar**
   Executive Engineer, (XEN/S/C)
   Rural Electrification Board
   REB Headquarters Building
   Joarshahara, Khilkhet
   Dhaka-1229
   Bangladesh
   E-mail: rebscell@citechco.net

2. **Mr. Erteza Ahmed**
   Managing Director
   Niad & Associates, Ltd.
   House 33, Road 106
   Dhanmandi R/A
   Dhaka, 1208
   Bangladesh
   Email: nal@bdcom.com

3. **Mrs. Motija Begum**
   Director, Personnel Admin.
   Rural Electrification Board
   REB Headquarters Building
   Joarshahara, Khilkhet
   Dhaka-1229
   Bangladesh
   E-mail: dmonorth@bttb.net.bd

4. **Mr. D.J. Choudhury**
   Superintending Engineer (Comilla)
   Rural Electrification Board
   REB Headquarters Building
   Joarshahara, Khilkhet
   Dhaka-1229
   Bangladesh

5. **Engineer Kamaluddin Ekran**
   Executive Director
   Engineers Consultants Bangladesh Ltd.
   House 10, Road 3
   Dhanmandi R/A
   Dhaka 1205
   Bangladesh

6. **Md. Mustafizul Haque**
   Deputy Director, PBS Mgmt Board (Central)
   Rural Electrification Board
   REB Headquarters Building
   Joarshahara, Khilkhet
   Dhaka-1229
   Bangladesh

7. **Md. Nurul Haque**
   Executive Engineer, Sariatpur
   Rural Electrification Board
   REB Headquarters Building
   Joarshahara, Khilkhet
   Dhaka-1229
   Bangladesh

8. **Md. Rabiul Hossain**
   General Manager
   Chittagong PBS-1
   Patia
   Chittagong-4370
   Bangladesh

9. **Mr. Syed Sarwar Hossain**
   Director, Procurement
   Rural Electrification Board
   REB Headquarters Building
   Joarshahara, Khilkhet
   Dhaka-1229
   Bangladesh
   E-mail: procure@citechco.net

10. **Mr. Shahjahan Howlader**
    Deputy Director, Finance
    Rural Electrification Board
    REB Headquarters Building
    Joarshahara, Khilkhet
    Dhaka-1229
    Bangladesh

11. **Mr. Md. Iqbal**
    Energy Specialist
    World Bank
    3A Paribagh
    G.P.O. Box 97
    Dhaka 1000
    Bangladesh
    Email: miqbal@worldbank.org

12. **Md. Ashraful Islam**
    Director, SE&D
    Rural Electrification Board
    REB Headquarters Building
    Joarshahara, Khilkhet
    Dhaka-1229
    Bangladesh
    E-mail: rebsedhk@citechco.net

13. **Dr. Khurshid Ul Islam ***
    Partner
    ARMCO
    55, Motijheel C/A. (4th floor)
    Dhaka 1000
    Bangladesh
    Email: armco@bangla.net

14. **Mr. Nazrul Islam**
    General Manager
    Bogra PSB
    Silimpur, Bogra 5800
    Bangladesh

15. **Mrs. Begum Mahmuda**
Director, Internal Audit
Rural Electrification Board
REB Headquarters Building
Joarshahara, Khilkhet
Dhaka-1229
Bangladesh

16. **Mr. Noor Mohammad**
General Manager
Dhaka PBS-2
Dohar Nawabganj
Dhaka-1320
Bangladesh

17. **Mr. Latifur Rahman**
Director, Accounts
Rural Electrification Board
REB Headquarters Building
Joarshahara, Khilkhet
Dhaka-1229
Bangladesh

18. **Md. Anisur Rahman**
General Manager
Tangail PBS
Ashekpur
Tangail-1900
Bangladesh

19. **Mr. Nirmal Chandra Sarkar**
Member (Administration)
Rural Electrification Board
REB Headquarters Building
Joarshahara, Khilkhet
Dhaka-1229
Bangladesh
E-mail: chairman@citechco.net

20. Mr. Suresh Nepal
Project Manager
Department of Power, Ministry of Trade & Industry
Project Implementation Unit
RE-ADB Phase II, Project, P.O.Box No.106
Thimpu
Bhutan
Email: suresh_ikus@yahoo.com

21. Mr. Tirtha Man Shakya
Manager, Leased Plant & Private Generation Division
Nepal Electricity Authority
Durbar Marga
Kathmandu
Nepal
E-mail: tirthashakya@hotmail.com

22. Mr. Dilli B. Singh *
Senior Divisional Engineer
Department of Electricity Development
Koteshwor
G.P.O. Box No.2507
Kathmandu
Nepal
Email: dillisingh@yahoo.com

23. Mr. Tirth Nath Thakur *
Chief, Small Hydropower & RE Department
Nepal Electricity Authority
Adwait Marga
Kathmandu
Nepal
Email: neagen1@ntc.net.np

24. Mr. S. Bogahawatte
Chief Engineer (Rural Electrification)
Ceylon Electricity Board
Distribution Planning Branch

50, C.A. Gardinar Mawatha
Colombo-02
Sri Lanka
Email: cere@ceb.lk

25. Mr. W.M.S.W Weerasinghe
Provincial Commercial Engineer
Maithripala Senanayake Mawatha
Maithripala Senanayake Mawatha DGM's office
Anuradhapura
Sri Lanka
Email: samanww@hotmail.com

2. Course 5.1: Creating the Environment for the REUs - Models for RE in South Asia - February 2 - 6, 2002 - Dhaka, Bangladesh

26. Ms. Roxana Ahmed
Dy. Chief, Power Division
Ministry of Energy & Mineral Resources
Building # 06
Bangladesh Secretariat
Dhaka 1000
Bangladesh
E-mail: mos@bttb.net.bd

27. Md. Salahuddin Al-Bitar
General Manager, PBS (Natore PBS-1)
C/O Rural Electrification Board
House # 4, Fourth Floor, Road # 1/A, Nikunja-2
Khilkhet
Dhaka 1229
Bangladesh
E-mail: ntrpbs1@bangla.net

28. Mr. Abu Saleh Md. Feroze
Project Director
Rahimafrooz Energy Services Ltd.
74, Motijheel C.A, (Ground Floor)
Dhaka 1000
Bangladesh

29. Md. Quamrul Haque
Asstt. General Manager

Grameen Shakti
Grameen Bank Bhaban
Mirpur-2
Dhaka 1216
Bangladesh

30. Mr. Mustafa Nasir Hassan
Sales & Service Engineer
Rahimafrooz Energy Services, Ltd.
74, Motijheel C.A, (Ground Floor)
Dhaka 1000
Bangladesh
Email: nasir@resl.rahimafrooz.net

31. Dr. Iqbal Hossain
Business Development Officer
United Summit Power Co. Ltd.
C/O Summit Group of Companies
18-Karwan Bazar Commercial Area
Dhaka 1215
Bangladesh
Email: mdidris@bdlink.com

32. Mr. A.H.M Nazmul Islam
General Manager, PBS (Jhenidah)
C/o Rural Electrification Board
House # 4, Fourth Floor, Road # 1/A, Nikunja-2
Khilkhet
Dhaka 1229
Bangladesh

33. Ms. Sonia Islam
O&M Engineer
United Summit Power Co.
C/O Summit Group of Companies
18-Karwan Bazar Commercial Area
Dhaka 1215
Bangladesh
Email: soniai@bdonline.com

34. Ms. Ismat Ara Jahan
Sr. Asstt. Secy, Power Division

Ministry of Energy & Mineral Resources
Building # 06
Bangladesh Secretariat
Dhaka 1000
Bangladesh

35. Ms. Khaleda Latif
Asstt. Chief (Power)
Ministry of Energy & Mineral Resources
Building # 06
Bangladesh Secretariat
Dhaka 1000
Bangladesh

36. Md. Ruhul Quddus
Asst. General Manager
Grameen Shakti
Grameen Bank Bhaban
Mirpur-2
Dhaka 1216
Bangladesh
E-mail: g_shakti@grammen.net

37. Md Mahbubur Rahman
General Manager, PBS (Laxmipur)
C/O Rural Electrification Board
House # 4, Fourth Floor, Road # 1/A, Nikunja-2
Khilkhet
Dhaka 1229
Bangladesh

38. Ms. Humaera Binte Reza
Asst. Engineer
Grameen Shakti
Grameen Bank Bhaban
Mirpur-2
Dhaka 1216
Bangladesh
E-mail: famchrai007@hotmail.com

39. Md. Shahbuddowla Sarkar
Director
Rural Electrification Board
House # 4, Fourth Floor, Road # 1/A, Nikunja-2
Khilkhet
Dhaka 1229
Bangladesh

40. Mr. Pradeep Mani Pradhan *
Project Manager, Sub-Transmission & Distribution Project Phase-II
Department of Power, Ministry of Trade & Industry
Thimpu
Bhutan
Email: pmpradhan9@hotmail.com / bpcues@druknet.bt

41. Mr. V.K. Khanna *
Executive Director
Rural Electrification Corporation Ltd
CORE 4, SCOPE Complex
7-Lodhi Road
New Delhi 110 003
India
Email: reccorp@recl.nic.in

42. Mr. Trilochen Singh *
Managing Director
West Bengal Rural Energy Development Corporation
19-A British India Street
Calcutta 700 069
India
Email: memberfa@vsnl.net

43. Capt. S.N. Verma
General Manger-cum-Chief Engineer
Bihar State Electricity Board
Central Electric Supply Area
Serpentine Road
Patna 800 001
India

44. Mr. Ahmed Mohamed

Assistant Director, Regional Development
Ministry of Planning and National Development
Ghazee Building
Ameeru Ahmed Magu
Male
Republic of Maldives
Email: ahmed@planning.gov.mv

45. Dr. Madan B. Basnyat
Executive Director
Alternative Energy Promotion Center
Pulchowk, Lalitpur
P.O. Box 14237Khilkhet
Kathmandu
Nepal
Email: energy@aepc.wlink.com.np/madan_basnyat@hotmail.com

46. Mr. Prakash Jang Rana *
Chief, Training Center
Nepal Electricity Authority
Durbar Marg
Kathmandu
Nepal
Email: tcnea@info.com.np

47. Mr. Dilli Prasad Ghimire
Chairman
South Lalitpur Rural Electric Cooperative Ltd.
Chapagaon-6, Lalitpur
G.P.O. Box 8975, EPC 975
Kathmandu
Nepal
Email: dilli_ghimire2001@yahoo.com

48. Mr. Asoka Abeygunawardena *
Energy Forum
239, High Level Road
Kirulapone
Colombo 5

Sri Lanka
Email: eforum@sltnet.lk

49. Mr. H.A.G. Pushpakumara
Deputy General Manager (Uva)
Ceylon Electricity Board
4-Spring Valley Road
Hindagoda, Badulla
Badulla
Sri Lanka
Email: cebuva@sltnet.lk

3. Course 5.2: Regulating Rural Electric Utilities (REUs) and Off-Grid Utility Systems - December 3 - 8, 2001 - Kathmandu, Nepal

50. Mr. Abdul Halim
Chief Engineer (P&O)
Rural Electrification Board
Nikunja-2
Khilkhet
Dhaka, 1229
Bangladesh
Email: halim@spaninn.com

51. Mr. Sheikh Md. Mobarok Hossain
Deputy Director
Power Cell, MEMR
BTMC Bhaban, 8th Level
Kawran Bazar
Dhaka, 1216
Bangladesh
Email: dgpcmemr@citechco.net

52. Mr. Tshenga Dorji
Executive Engineer
Dzonkhag Electricity Supply Unit
Samtse
Bhutan

53. Mr. Ugyen Dorji
Assistant Engineer, Operations & Maintenance Division
Department of Power, Ministry of Trade & Industry
Royal Government of Bhutan

P.O.Box 106
Thimphu
Bhutan

54. Mr. Mohamed Latheef
Planning Officer
Ministry of Planning and National Development
4th floor, Ghaazee Building
Ameer Ahmed Magu
Male 20-50
Republic of Maldives
Email: latifm@hotmail.com;admin@planning.gov.mv

55. Mr. Deepak Prasad Dhahal
Secretary
South Lalitpur Rural Electric Cooperative Ltd.
Chapagaon-6
G.P.O. Box 8975
Lalitpur
Nepal

56. Mr. Ram Bhakta Karki *
Director, Operation Department
Butwal Power Company
P.O. Box 11728
Kathmandu
Nepal
Email: rb-karki@hydroconsult.com.np

57. Mr. Rajeev Karki
Engineer
Alternative Energy Promotion Centre, Ministry of Science and Technology
P.O. Box 14237
Krishna Galli, Pulchowk
Lalitpur
Nepal
Email: rkarki@aepc.gov.np

58. Mr. Dilli Raman Neupane *
Engineer
Alternative Energy Promotion Centre, Ministry of Science and Technology

P.O. Box 14237
Krishna Galli, Pulchowk
Lalitpur
Nepal
Email: drneupane@aepc.gov.np

59. Mr. Ishwar Lal Shrestha
Engineer, Small Hydro Power & RE Department
Nepal Electricity Authority
Durbar Marg
Kathmandu
Nepal

60. Mr. Jeevan Raj Shrestha *
Chief, Corporate Planning
Nepal Electricity Authority
Durbar Marg
Kathmandu
Nepal
Email: jrshrestha@wlink.com.np

61. Mr. Manoj Silwal
Engineer, Small Hydropower and RE Department
Nepal Electricity Authority
Durbar Marg
Kathmandu
Nepal
Email: nea_misd@info.com.np;neamd@mos.com.np

62. Mr. Nabin Raj Singh
Engineer
Ministry of Water Resources
Singha Durbar
Kathmandu
Nepal
Email: nrsingh@yahoo.com

63. Dr. R.A. Attalage
Centre for Energy Studies, University of Moratuwa
Katubedda
Moratuwa 10400

Sri Lanka
Email: dinu@mech.mrt.ac.lk

64. **Mr. R.A. Dassanayake ***
Project Officer, Energy Services Delivery Project
DFCC Bank
73/5, Galle Road
Colombo 3
Sri Lanka
Email: Ravi.Dassanayake@dfccBank.com

65. **Mr. W.W. Roshan Nishantha Fernando**
Coordinator, Energy Information Center
Energy Forum
247, Polhengoda Road
Colombo 5
Sri Lanka
Email: eforum@sltnet.lk

4. Course 5.3: Structuring and Implementing Rural Energy Program - October 29 - November 3, 2001 - Colombo, Sri Lanka

66. **Mr. Karma Tshering ***
Executive Engineer, Technical Planning Unit, Projects Planning & Investigation Division
Department of Power, Ministry of Trade & Industry
Royal Government of Bhutan
Thimpu
Bhutan
Email: karma508@yahoo.com

67. **Mr. Karma Wangchuk**
Assistant Engineer
Department of Power, Ministry of Trade & Industry
Royal Government of Bhutan
Thimphu
Bhutan
Email: piure@druknet.net.bt

68. Mr. Surendra Mananda Bajracharya
Senior Divisional Engineer
Department of Electricity Development (DOED), Ministry of Water Resources,
P.O. Box 2507
Kathmandu
Nepal
Email: smb@tssdp.wlink.com.np

69. Mr. Sri Gopal Ranjit
Assistant Manager
Nepal Electricity Authority
Durbar Marg
Kathmandu
Nepal
Email: bgr@ntc.net.np

70. Mr. L. Ariyadasa
Project Manager (Wind Project)
Ceylon Electricity Board
PPP Branch
Colombo 2
Sri Lanka
Email: pmwind@ceb.lk

71. Mr. Bandula Chandrasekera
Field Coordinator
Energy Forum
247, Polhengoda Road
Colombo 5
Sri Lanka
Email: eforum@sltnet.lk

72. Mr. W.B. Dissanayake
Director (Power & Energy)
Ministry of Lands, Irrigation and Energy
80, Flower Road
Colombo 7
Sri Lanka
Email: power@mail4.lanka.net

73. Mr. Saminda Goonasekara *
Senior Project Officer
DFCC Bank

73, W.A.D. Ramanayake Mawatha
Colombo 2
Sri Lanka
Email: Saminda.Goonasekera@dfccbank.com

74. Mrs. Sanjeevani Munasinghe
Director
Energy Forum
247, Polhengoda Road
Colombo 5
Sri Lanka
Email: sanjeevani.munasinghe@britishcouncil.lk

75. Mr. N.M. Musafer
Project Manager (Energy)
Intermediate Technology Development Group
5, Lionel Edirisinghe Mawatha
Colombo 5
Sri Lanka

76. Mr. M.A.D.A.K. Samaraweera
Planning Engineer
Lanka Electricity Company Limited
E.H. Cooray Building
Colombo 3
Sri Lanka
Email: madaks@leco.lk

77. Mr. Rohan Senarath *
Program Manager (Energy)
Intermediate Technology Development Group
5, Lionel Edirisinghe Mawatha
Colombo 5
Sri Lanka
Email: rohans@itdg.slt.lk

78. Mr. Mahinda Senaratne *
Assistant Secretary

Sabaragamuwa Provincial Council
Chief Secretaries Office
New Town
Ratnapura
Sri Lanka
Email: charithanaynaaith@hotmail.com

79. Mr. Rohitha M. Thantilage
Consultant
Industrial Services Bureau
141, Kandy Road
Kurunegala
Sri Lanka
Email: isbnwp@slt.lk

80. Mr. Anura Vidanagamage
Consultant
Industrial Services Bureau
141, Kandy Road
Kurunegala
Sri Lanka
Email: isbnwp@slt.lk

81. Mr. Harsha Wickramasinghe
Director-Projects, Energy Conservation Fund
Ministry of Land, Irrigation and Energy
410/34 Baudhaloka Mawatha
Colombo 7
Sri Lanka
Email: energy1@lanka.ccom.lk

5. Course 5.4: Enhancing the Environment for Small Electric Power Generation - September 3 - 8, 2001 - Kathmandu, Nepal

82. Mr. Nidhu Chandra Das
Superintending Engineer (Generation)
Rural Electrification Board
House # 4, Fourth Floor, Road # 1/A, Nikunja-2
Khilkhet

Dhaka 1229
Bangladesh

83. Mr. Mahbub Ul Alam Khan
Joint Secretary, Power Division
Ministry of Energy & Mineral Resources
Building # 06
Bangladesh Secretariat
Dhaka 1000
Bangladesh

84. Mr. Mujibur Rahman
General Manager
Grameen Shakti
Grameen Bank Bhaban
Mirpur-2
Dhaka 1216
Bangladesh
Email: g_shakti@citechco.net

85. Mr. Pushpa Lal Sharma
Executive Engineer
Electrical Construction Unit (ECU)-East
Tashigang
Bhutan
Email: tlsecue@druknet.bt

86. Mr. Hussain Adam
Director
Ministry of Atolls Administration
Fashana Building
Boduthakurufaanu Magu
Male' 20-05
Republic of Maldives
Email: atolls@dhivehinet.net.mv

87. Mr. Arjun Adhikari *
Environmental Officer
Annapurna Group (P) Ltd.
Mandi I - Hydro Power Project
G.P.O. Box11606
Kathmandu
Nepal
Email: arjun_adhikari2000@yahoo.com

88. Mr. Krishna P. Bhandari
Chief Project Coordinator
Indrawati III Hydropower Project
Kathmandu
Nepal
Email: pheme@net.com.np

89. Mr. Naradmuni Bhandari
Member, Board of Directors (Electrical Engineer)
Himalaya Energy Development Company (Pvt.) Ltd.
Central Office: Balkot VDC-2
G.P.O. Box 10429
Bhaktapur
Nepal
Email: himal_energy@enet.com.np

90. Mr. Ganga Prasad Joshi
Executive Director
Khoranga Khola Hydropower Development Co. (Pvt.) Ltd.
P.O. Box 2059
Dhungedhara, Baneshwor
Kathmandu
Nepal
Email: tengbe@buddhaera.com.np

91. Mr. Guru Prasad Neupane *
Managing Director
Arun Valley Hydropower Development Co. (P.) Ltd.
G.P.O. Box 11039
Kathmandu
Nepal
Email: neupane@guru.wlink.com.np

92. Mr. Chhetra Bikram K.C. *
Senior Divisional Engineer
Ministry of Water Resources
Kathmandu

Nepal
Email: mowr@wlink.com.np

93. Dr. Subarna Shrestha
Director-In-Chief
Sanima Hydropower (P.) Ltd.
Pink House, Bansbari
G.P.O. Box 8975, EPC 5737
Kathmandu
Nepal

94. Mr. Moti Kaji Shakya
Deputy Manager
Nepal Electricity Authority, Corporate Planning
Durbar Marg
Kathmandu
Nepal
E-mail: ronast@mos.com.np

95. Mr. Manik Lama
Executive Director
National Center for Water Resources & Environment Research
P.O. Box 2919
Kathmandu
Nepal
Email: manik_l@hotmail.com

96. Mr. S.H. Midigaspe
Electrical Engineer
Laxapana Power Station, Ceylon Electricity Board
Laxapana
Sri Lanka

97. .Mr. V. Rajendran *
Additional General Manager (Distribution Construction & Services)
Ceylon Electricity Board
50, Sir Chittampalam A. Gardiner Mawatha
P.O. Box 540
Colombo 2

Sri Lanka
Email: rajve2001@yahoo.co.uk

98.. Mr. T.N. Sandasiri
Electrical Engineer, Generation Planning Branch
Ceylon Electricity Board
50, Sir Chittampalam A. Gardiner Mawatha
P.O. Box 540
Colombo 2
Sri Lanka

99.. Ms. D. Prashanthi A. Weerasinghe
Project Executive, Energy Services Delivery Project
DFCC Bank
73/5, Galle Road
Colombo 3
Sri Lanka
Email: Prashanthi.Weerasingha@dfccbank.com

6. Workshop 5.1 (2002): Workshop on the Bangladesh Rural Electrification Model - Visit by the Indian Delegation to REB and selected PBSs - April 8 - 10, 2002 - Dhaka, Bangladesh

100. Mr. Ravi Budhiraja *
Principal Secretary (Energy)
Energy Department, Government of Maharashtra
Mantralaya
Mumbai 400 032
India
Email: secenergy@vsnl.com

101. Mr. N.C. Dash
Managing Director
Southern Electricity Distribution Company of Orissa
Behrampore, Orissa
India
Email: pr_nanda@yahoo.com

102. Mr. S. Majumdar

Chief (OD)
Rural Electrification Corporation
Scope Complex, Core No.4
7-Lodhi Road
New Delhi 110 003
India
Email: sujanmajumdar@hotmail.com

103. Mr. D.N. Padhi
Principal Secretary (Energy)
Energy Department, Government of Orissa
Bhubaneswar 750001, Orissa
India
E-mail: dnpadhi_ias@hotmail.com

104. Mr. A.M. Solanki
Joint Secretary (Energy)
Energy & Petrochemical Dept., Government of Gujarat
Sachivalaya, Block No.5
Gandhi Nagar 382010(Ahmedabad)
India

105. Mr. R.K. Verma *
Director
Central Electricity Authority
Ministry of Power, Govt. of India
432 (N) Sewa Bhawan, R.K.Puram
New Delhi 110 066
India
Email: ravi2658@yahoo.com

ANNEX II: SAMPLE SURVEY LETTER AND QUESTIONS

ANNEX II: SAMPLE SURVEY LETTER AND QUESTIONS

Sample Survey: SARI/Energy RES Program:

Mr. Rohan Senarath
Program Manager (Energy)
Intermediate Technology Development Group
5, Lionel Edirisinghe Mawatha
Colombo 5
Sri Lanka

Email: rohans@itdg.slt.lk

Subject: Request for Short Answers to Three Questions Related to Results, Questions Related to the Development of a Rural Electrification Website/Page, and a Photograph (if available)

Dear Mr. Senarath:

We would like to document real life examples of how the course on Structuring and Implementing Rural Energy Programs, held in Colombo, Sri Lanka, October 29 - November 03, 2001 funded by the U.S. Agency for International Development (USAID) through the South Asia Regional Initiative for Energy (SARI/Energy) has benefited you, your organization, and/or your community.

CORE International, Inc. would like to again thank you for your active participation in the course and we are asking each participant who attended to provide us with answers to the attached questions on or before July 31, 2002.

The objectives of the SARI/Energy Program are to improve South Asian country policies and agreements for cross-border cooperation for sustainable energy in order to facilitate the longer-term process of rationalizing energy supply and its regional distribution. CORE International is responsible for the delivery of training under one of the five areas for South Asian country cooperation, the area of Rural Electric Services (SARI/Energy-RES). Future courses and workshops are being planned and we need your input to develop these activities. In addition, CORE International is also considering developing a website or web page specifically dedicated to the exchange of ideas and information between attendees of our past and future programs.

The attached questions cover two separate areas. The first is documentation of the real life results and benefits that were gained from your participation in the training course. The second area concerns your personal input as to the usefulness

of a website/web page under the SARI/Energy Program dedicated exclusively to communications and exchange between alumni of past and future training courses conducted by CORE.

As you know, you were hand picked to participate in this program by your government, a representative of your community or USAID. Based on your participation in the course, we need your candid opinion as to the goal, content, and benefits that could be gained from a well structured and up-to-date website/page which would provide an opportunity for you to share your knowledge and experiences with other course participants.

If available, we would also ask you to send a recent photograph electronically (.gif or other image file) which shows you in your current work environment or a photograph that relays the message of your success story that can be shared with others. Please provide your response by email (preferred), fax, or mail, as shown below:

Email: lvarrick@coreintl.com
Fax: USA (202) 362-9101
Mail: CORE International, Inc.
5101 Wisconsin Avenue, NW, Suite 305
Washington, D.C. 20016
Tel: 202-362-9100
Attn: Lois Varrick, Corporate Vice President

CORE staff will be happy to assist you in any way when you are preparing your response. Please do not hesitate to contact us if we can be of any help or assistance.

We are seeking real life examples, whether small or large, that were accomplished in Sri Lanka, either as a direct result of what you learned during your program, or indirectly through knowledge you shared with others. Real life examples could include a change in policy related to rural electrification, the introduction of new financing schemes, a greater ability to define the best technology options for a given rural community, or even a presentation that you may have made to your colleagues following the course.

We are asking that each participant in CORE's training programs provide us with answers to the following questions on or before July 31, 2002.

PART 1 - SHORT ANSWER QUESTIONS FOR DOCUMENTING SUCCESS STORIES AND IMPACTS - YOUR REAL LIFE EXAMPLE

1. Describe one or more specific incidents in which you were able to share, apply and/or utilize knowledge gained through your participation in the course. This may apply to Sri Lanka, or another country in the region.

2. What was the positive impact and result that occurred in your organization and/or community as a result?

3. Please describe in your own words how this result relates to the objectives of the South Asia Regional Initiative for Energy.

PART 2 - SHORT ANSWER QUESTIONS FOR DETERMINING THE BENEFITS OF A RURAL ELECTRIFICATION WEBSITE/WEB PAGE

1. What do you think should be the primary goal/purpose of a SARI/Energy RES website/page?

2. What would you recommend as the content for this website/page?

3. Who should be the primary users of this website/page?

4. If the website/page contained information regarding best practices in rural electrification worldwide, would you view this website/web page on a routine basis from your office?

5. Please provide any other comments relevant to the development of a website/page for participants in the South Asia Regional Initiative for Energy (SARI/E) Rural Electric Services (RES).

Name: Rohan Senarath
Title: Program Manager
Organization: Intermediate Technology Development Group
Program: Structuring and Implementing Rural Energy Program
Date Prepared:

Updated Contact Information (if different from above):
Address:

Email:
Phone:
Fax:

We would greatly appreciate receiving this information by July 31, 2002. Email is preferred, but fax and mail are also welcome. On behalf of the United States Agency for International Development we would like to again thank you for your time in preparing your response.
Kind regards,

Lois A. Varrick
Corporate Vice President
CORE International, Inc.
5101 Wisconsin Avenue, NW, Suite 305
Washington, D.C. 20016
Tel: 202-362-9100
Fax: 202-362-9101
Email: lvarrick@coreintl.com
www.coreintl.com

ANNEX III: FULL RESPONSES OF THE PARTICIPANTS

ANNEX III: FULL RESPONSES OF THE PARTICIPANTS

1. Workshop 5.1 (2001): Meeting Rural Electric Needs in South Asia, CORE International, Inc.

LOCATION:
Dhaka, Bangladesh
DATES:
May 8 - 10, 2001

SYNOPSIS:

The primary objective of the workshop was to share a proven and successful rural electrification program in Bangladesh with the workshop participants. The workshop included a thorough discussion on implementation (covering engineering, financing, and management aspects) of a similar program in other South Asian countries by identifying similarities and differences due to geographical, cultural and social variations among and within the participating South Asian countries.

PARTICIPANT SURVEY RESPONSES:

Name:	**Dr. Khursheed Ul-Islam**
Title:	**Partner**
Organization/Agency:	**ARMCO**
Country:	**Bangladesh**

PART 1 - SHORT ANSWER QUESTIONS FOR DOCUMENTING SUCCESS STORIES AND IMPACTS

Describe one or more specific incidents in which you were able to share, apply and/or utilize knowledge gained through your participation in the workshop. This may apply to Bangladesh, or another country in the region.

ARMCO, the local 'turn-key' engineering company, was responsible for implementing the French-funded first 62 kW Pilot Solar (PV) Project at Narsingdi. The Rural Electrification Board (REB) could share a lot on their findings/observations of the project outputs with other participants in the Workshop.

The participation is helping us to get more appropriate feed back in our planning/preparation of future Rural-based PV Electrification Initiatives.

It should be mentioned further that at the initial stage, following the implementation of the above real-life example, ARMCO used to take the lead role in presenting the positive role of Renewable Energy Technology, like Solar PV in Electrification of Remote Rural areas of Bangladesh. In the Workshop, it pleased us to see that the REB has now taken up an active front role, with background support from ARMCO, which means that a real transfer of not only the technology, but also the required objective and the spirit of the SPV Pilot Project - motivation and dissemination - have now been achieved.

Some key observations presented and discussed in the workshop, from which we benefited (include)…
the exchange of operating experiences in the rural PV/Renewable Energy sector with neighboring country (India) participants in the Seminar, relating to SPV Electrification of Rural areas. India is already well ahead in this sector.

Dr. Khursheed Ul-Islam, Bangladesh

In the Workshop, REB presented some of their observations and suggestions for further future dissemination of SPV Projects for electrification of other remote rural areas of Bangladesh, which were also discussed in detail, by other participants in the Workshop. Some key feed backs/observations presented and discussed in the workshop from which we benefited are below:

- the present high cost of reaching grid electricity to remote ("thin-load") consumer rural areas (close to US $10,000/mile) and the positive points of electrifications of such areas with Solar PV Electricity.

- the exchange of operating experiences in the rural PV/Renewable Energy sector with our neighboring country (India) participants in the Seminar, relating to SPV Electrification of Rural areas. India is already well ahead in this sector. In future project designs, such experiences (Battery and Maintenance problems - their solutions in case of PV-DC Systems and also the necessity of implementing PVAC Small Rural Central Power Plants - PV-Diesel/Bio-mass, PV-Wind Hybrid-Systems)

What was the positive impact and result that occurred in your organization and/or community as a result?

The SARI Workshop has definitely created a positive impact in our organization, in terms of boosting our activities and efforts in the dissemination of more Renewable Energy projects in Bangladesh:

(i) ARMCO initiated further PV Projects for REB for dissemination of the Rural PV

"The SARI Workshop has definitely created a positive impact in our organization, in terms of boosting our activities and efforts in the dissemination of more Renewable Energy projects in Bangladesh"

Dr. Khursheed Ul-Islam, Bangladesh

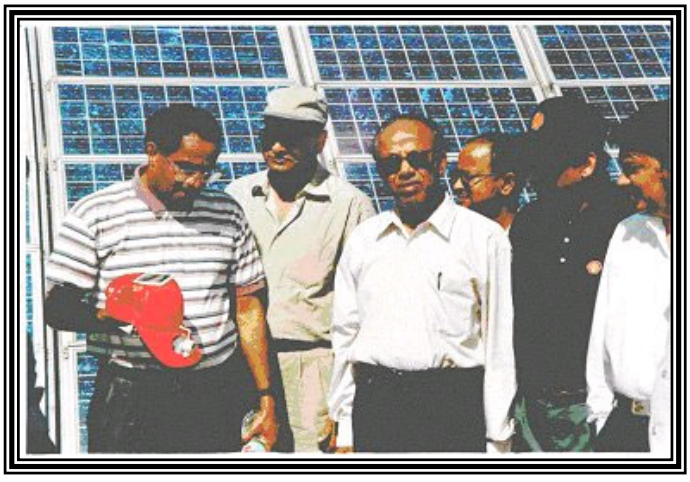
Electrification to other off-grid remote areas of the country (6000 Household PV Program of neighboring islands).

(ii) ARMCO initiated the Dissemination of Solar PV Pumping (Deep Well) through a Pilot Field Test at Karimpur Central Station site with the objective of implementing Drinking Water Supply and Small Irrigation (Horticulture) Projects in off-grid areas.

(iii) As their next RE Project, ARMCO has also planned to implement a Central PVAC Rural Power Plant (25 kW) in a remote rural area in Bangladesh where international fund support is being sought.

(iv) Furthermore, ARMCO has recently played a key role as key member of a core group of a private-sector initiative to create, motivate, and accelerate Government support for dissemination of Renewable Energy in Bangladesh, comprising of 4 "major players" in Bangladesh in the PV Electrification of Rural Areas - Rahimafrooz, Siemens (Bangladesh) Ltd., First Bangladesh Solar Technologies Ltd., and Associated Resources Management Co (ARMCO), which has led to formation of the "Bangladesh Renewable Energy Association" (BREA). Mr. Niaz Rahim of Rahimafrooz Ltd. is the President and Dr. Engr. K. Islam, ARMCO, is the Vice President of BREA.

BREA was "soft-launched" about two months back with a Seminar Presentation, and the Honorable State Minister for Power was the Chief Guest. It was attended by most of the key "players" in the Renewable Energy sector in Bangladesh. BREA has received a commitment from the Honorable Minister to receive support from the Government of Bangladesh, relating to promotion and dissemination of Renewable Energy Projects in the country, including finalization and ratification of a Renewable Energy Policy for Bangladesh, which has been awaiting acceptance for over a year (it is currently in draft form). Dr. Engr. K. Islam presented the concluding remarks at the Seminar, summarizing the objectives and roles of BREA, the potential of Renewable Energy for Rural Remote Area Electrification in Bangladesh, and the total Action Plans, which both Government and private-sector should launch for an accelerated dissemination of Renewable Energy in Bangladesh.



Any possible support by SARI/Energy (RES) to BREA would be highly appreciate in fulfilling the above objectives of BREA, especially in organizing joint Workshops, Seminars, and also in lining up international finance to disseminate RE projects in Bangladesh (such as Greenhouse Gas/Energy Conservation Mitigation Projects). It will especially be appreciated if SARI/E can promote any cooperation between the Indian Renewable Energy Development Agency - IREDA - and BREA. In absence of an 'Apex' body like IREDA, the newly established BREA, although a private initiative, has set a goal of playing a similar role to the one IREDA fulfills in India; to promote, disseminate, and organize international funds for Renewable Energy Technologies/Projects.

Please describe in your own words how this result relates to the objectives of the South Asia Regional Initiative for Energy.

One of the major objectives of SARI/E is to optimize and conserve all Primary Energy Sources in the region, especially the conservation of Natural Gas. Promotion and Dissemination of Renewable Energy Technologies ("RETs" such as Solar PV, Solar Thermal, Wind, Bio-mass, Bio-gas, Mini- and Micro-Hydro, Tidal, Oceanic Thermal, Geo-thermal, and others) will not only achieve this primary goal, but will create major Greenhouse Gas (GHG) Mitigation Options to protect the planet from the adverse effects of Global Climate Change and the consequential Sea-level Rise, which will first affect the low-lying areas of the Region (Coastal areas of India, Pakistan, Bangladesh, the Maldives, and the Sri Lankan coastal belt).

PART 2 - ANSWERS TO QUESTIONS RELATED TO DETERMINING THE BENEFITS OF A RURAL ELECTRIFICATION WEBSITE/WEB PAGE

What do you think should be the primary goal/purpose of a SARI/Energy RES website/page?

In our opinion the primary goal of a SARI/E RES Website would be to create a much needed facility - both within and outside the South Asian Region - to keep track of activities going on in the area of Rural Electric Services, thus enhancing exchange of information and experiences within countries of the region. This would then help meet SARI/E's eventual Objective of optimizing Intra and Inter-regional Energy Use

What would you recommend as the content for this website/page?

We would recommend that the proposed SARI/E Website has the following outline :

1) SARI/E and SARI/E RES Objectives - A Brief Paragraph (for Public Information)

2) A GIS-based database on the RES Situation of countries of the Region (overall RES situation in each country - Villages Electrified, Thanas Electrified, Nos. of Rural Electric Societies, Total Consumers, Total Connected Load, Total Transmission Lines, Total Distribution Lines, Investment Costs of Generation, Transmission & Distribution related to RES Supply Network, and also System Loss and Tariff figures, if possible)

3) Typical Case Studies ("Best Practices") in Rural Electrification world wide

4) A Special Section on Renewable Energy Applications in South Asian Rural Areas, with references to Case Studies/Success Stories with Photographs, where possible. Also, global information updates on Rural Electrification, including Application of RETs, would be very helpful since this is an emerging sector for the 21st Century.

Who should be the primary users of this website/page?

The anticipated primary users of the proposed Website are:

- Donor Agencies (e.g. USAID, WB/IDA, ADB, CIDA, and others)
- Policy-making Government Institutions (Ministries)
- Implementing Agencies of Government (e.g. Power Boards, Rural Electrification Boards)
- Non-Profit/Non-Government (NGO) Institutions
- Consulting Institutions/Experts
- Suppliers/Contractors/"Turn-key" Operators
- Academics/Researchers

If the website/page contained information regarding best practices in rural electrification worldwide, would you view this website/web page on a routine basis from your office?

If the website contains the above suggested data/information on "Best Practices" worldwide, we are quite confident that the proposed SARI/E RES Initiative will receive a large cross-section of viewers globally, including our institution, who are deeply associated with the energy sector in general and rural electrification and its other specialized aspects (such as application of PV/other Renewable Energy Technologies) in particular.

Other Comments:

ARMCO, a multi-disciplinary consulting institution that has a specialization in Energy-based consultancy, as well as "turn-key" project assignments, has a core group of very specialized Energy Professionals in areas of both Fossil Fuels (Oil &

Gas, Coal) and Power. In the areas of Renewable Energy, ARMCO has been a pioneering "turn-key" local engineering company that implemented the first 62 kW Solar PV Pilot Project at 4 Meghna River Islands at Narsingdi.

ARMCO also acted as the local consultant in formulating the Private Power Generation Policy of Bangladesh and has been involved in a number of CIDA, IDA, and ADB-funded projects like, the LPG Master Plan and its update (CIDA-funded), Energy Efficiency Study (IDA-funded), US Country Study for Climate Change, Gas Studies etc. Presently, ARMCO is completing an ADB-funded Consultancy Study (conclusion of Final Report) on Consumer Census for the Dhaka Electric Supply Authority (DESA).

If necessary, ARMCO would be pleased to extend services to SARI/E's specialized Training/Study Areas (Fossil Fuel, IPP, Rural Electrification, and Renewable Energy) in Bangladesh or in the South Asian Region, through its experienced resource staff.

Workshop 5.1 (2001): Meeting Rural Electric Needs in South Asia, CORE International, Inc.

Name: **Mr. Dilli B. Singh**
Title: **Senior Divisional Engineer**
Organization: **Department of Electricity Development**
Country: **Nepal**

PART 1 - SHORT ANSWER QUESTIONS FOR DOCUMENTING SUCCESS STORIES AND IMPACTS

Describe one or more specific incidents in which you were able to share, apply and/or utilize knowledge gained through your participation in the workshop. This may apply to Nepal, or another country in the region.

The workshop, entitled "Meeting Rural Electricity Needs in South Asia", held in Dhaka, Bangladesh from May 8 - 10, 2002, helped me quite a lot in formulating the Tenth Five-Year Plan (2002/03-2007/08) of Nepal which related to the electricity sector. This plan included many rural electrification programs. We have also proposed a study project, which will conduct a study on "how the rural people can be brought into the main stream of electricity development". So, the Bangladeshi model of rural electrification (i.e., electrification through cooperative) would be a better option which will be studied first and then, if the study suggests, it will be incorporated in the next annual plan. The Tenth Five-Year Plan (2002/03-2007/08) will be finalized in couple of months.

Nepal has also adopted the medium Term Expenditure Framework (MTEF), starting from the current Financial Year (July 2002/03). It is a model successfully implemented by Zimbabwe. MTEF tries to maximize the output, which could reach the rural poor, utilizing lesser amounts of financial resources. MTEF is valid for three years. The workshop also helped me in formulating MTEF for the electricity sector.

What was the positive impact and result that occurred in your organization and/or community as a result?

There was no dispute among the team members in formulating the Tenth Five-Year Plan. In a similar manner, there was consensus in prioritizing, deferring, and cutting projects, simply due to not having enough resources with the government (this used to be a matter of big debate in the past). The reason behind this is the genuine logic presented during the discussion and, more importantly realizing the importance of electrification in the process of developing an industrial base in rural settings which might achieve the noble cause of poverty alleviation. The output and impacts of the plans and programs will be realized in the future.

Please describe in your own words how this result relates to the objectives of the South Asia Regional Initiative for Energy.

In both the plans explained above, three transmission linkages; (a) Butwal - Sunauli 132 KV Transmission Line; (b) Dhalkebar - Vittamodh 132 KV Transmission Line; and (c) Parwanipur - Birgunj 132 KV Transmission Line have been proposed in order to link the Nepalese Power Grid with the Indian Power System. Construction of those transmission linkages will facilitate the energy exchange between Nepal and India, hence attaining the objectives of South Asia Regional Initiative for Energy Program.

PART 2 - ANSWERS TO QUESTIONS RELATED TO DETERMINING THE BENEFITS OF A RURAL ELECTRIFICATION WEBSITE/WEB PAGE

What do you think should be the primary goal/purpose of a SARI/Energy RES website/page?

It should provide relevant information to the government officials, planners, proponents, developers, consultants, financiers, researchers, students, NGO/INGO, and other interested parties.

What would you recommend as the content for this website/page?

The recommended content is:

1) Status of energy sector development
2) Potential opportunities
3) Relevant legislative framework
4) Needs of the nation/neighboring country/region
5) Opportunities for the bilateral development of a power market
6) Opportunities for the regional development of a power market
7) Other associated benefits while developing a power market (water for irrigation/navigation/recreation/drinking water/flood control)
8) Availability of resources for developing a power market
9) Explanation of the urgency for rural electrification

Who should be the primary users of this website/page?

The primary users would be the government officials, planners, proponents, developers, NGO/INGO, consultants, financiers, researchers, and students.

If the website/page contained information regarding best practices in rural electrification worldwide, would you view this website/web page on a routine basis from your office?

I will view the website on a necessary basis.

Workshop 5.1 (2001): Meeting Rural Electric Needs in South Asia, CORE International, Inc.

Name: **Mr. Tirth Nath Thakur**
Title: **Chief, Small Hydropower & RE Department**
Organization/Agency: **Nepal Electric Authority**
Country: **Nepal**

PART 1 - SHORT ANSWER QUESTIONS FOR DOCUMENTING SUCCESS STORIES AND IMPACTS - YOUR REAL LIFE EXAMPLE

Describe one or more specific incidents in which you were able to share, apply and/or utilize knowledge gained through your participation in the course. This may apply to Nepal, or another country in the region.

I have tried to utilize the knowledge and experience gained in the workshop to improve methods in areas where the distribution works are already being handed through to consumer service (Lamjung Districts).

What was the positive impact and result that occurred in your organization and/or community as a result?

As this method provides employment to local people and provides a feeling that they are part of the core group responsible for the development of their region, a very encouraging and exciting impact has occurred in this part of the country. However, more communication and orientation with local people is needed. I am trying to implement this in the Lalitpur district of Nepal, and in the western part of Nepal.

Please describe in your own words how this result relates to the objectives of the South Asia Regional Initiative for Energy.

No Response

PART 2 - SHORT ANSWER QUESTIONS FOR DETERMINING THE BENEFITS OF A RURAL ELECTRIFICATION WEBSITE/WEB PAGE

What do you think should be the primary goal/purpose of a SARI/Energy RES website/page?

The primary goal/purpose of a SARI/Energy RES website/page should be to make the concerned people and organizations responsible for rural electrification fully aware of the advantages of this program if it is implemented properly.

What would you recommend as the content for this website/page?

The website/page should content general principles, methods of application, advantages, responsibilities, as well as its limitations.

Who should be the primary users of this website/page?

People who work at organizations, departments, and ministries that are responsible for the executions of rural electrification. The beneficiaries from such electrification should also be the uses of this website/page.

If the website/page contained information regarding best practices in rural electrification worldwide, would you view this website/web page on a routine basis from your office?

Yes, provided information on the website /page is suitable and detailed information is given.

Please provide any other comments relevant to the development of a website/page for participants in the South Asia Regional Initiative for Energy (SARI/E) Rural Electric Services (RES).

For the website/page to provide maximum benefit in the execution of rural electrification initiated by SARI/Energy RES, it is advised that the participants should not be limited to the governmental organizations, rather NGOs and Industrial representatives should also be included as participants.

2. Course 5.1: Creating the Environment for the REUs - Models for RE in South Asia, CORE International, Inc.

LOCATION:
Dhaka, Bangladesh
DATES:
February 2 - 6, 2002

SYNOPSIS:

The primary objective of the course on "Creating the Environment for the REUs -- Models for RE in South Asia" was to present the modalities of creating REUs, their relationship with existing utilities, development and management of REUs from infancy to maturity, financing, engineering, operating and maintaining REUs. The course aimed to provide potential implementers/managers, regulators and policy makers with a thorough understanding of different structures of REU programs, the implications of geographical, cultural and social diversity on the structure and functioning of REUs to meet the rural consumers expectations and aspirations.

PARTICIPANT SURVEY RESPONSES:

Name:	**Asoka Abeygunawardena**
Title:	**Program Coordinator**
Organization/Agency:	**Energy Forum**
Country:	**Sri Lanka**

PART 1 - SHORT ANSWER QUESTIONS FOR DOCUMENTING SUCCESS STORIES AND IMPACTS

Describe one or more specific incidents in which you were able to share, apply and/or utilize knowledge gained through your participation in the workshop. This may apply to Sri Lanka, or any other country in the region.

I was keen on investigating the relevance of single-phase transformers in Sri Lanka (as used in Bangladesh) to address the issue of extending the grid to rural areas that have low population density. However I did not have the opportunity to discuss this matter with the Ceylon Electricity Board yet.

I had discussions with local micro-financing institutions that provide credit under ESDP to consider the experiences of Grameen Solar system to provide technical services. However they mentioned that had they have tried this before and failed due to lack of capability and are satisfied with the current setup.

What was the positive impact and result that occurred in your organization and/or community as a result?

We have established a National Level Energy Network to coordinate activities between the private sector and organizations such as Solar Industries Association, Government Institutions such as CEB, and Civil Society Institutions such as Micro-financing Institutions, in order to create better understanding which will benefit the sector.

Organizations linked with the National Energy Network:

9) Energy Forum
10) Energy Conservation Fund
11) NERD Center
12) ITDG
13) Sarvodaya SEEDS
14) IDEA
15) Solar Industries Association
16) Micro-hydro Developers Association

Provincial Energy Networks linked with the National Energy Network:

Southern, Uva, Sabaragamuwa, North Central, Northwestern, North and East

Other Networks Linked with the National Energy Symposium:

Energy Sector Researchers, Federation of Electricity Consumer Societies, CBOs in Off-grid areas, Shakthi Viskam Students Clubs, Journalists

Technologies promoted through the network:

Micro-hydro, Solar PV, Solar Thermal, Wind, Bio-gas, Bio-mass Cook Stoves, Dendro Power, Paddy Husk, Energy, Conservation

Purpose of the National Energy Network:
To create an enabling environment for the networking organizations to interact and work together for the promotion and adoption of appropriate, viable energy services and options.

Objectives of the National Energy Network:

1) To enable sharing of resources;
2) To create a better policy environment; and

3) To enhance the capability of member organizations to promote and adopt appropriate, viable energy services and options.

Focus of the National Energy Network:

1) Supplying Electricity to Off-Grid Communities
2) Satisfying the demand of the national grid
3) Satisfying non-electrical energy needs of the general public

Please describe in your own words how this result relates to the objectives of the South Asia Regional Initiative for Energy

Our effort will strengthen the Private- Public- Civil Society partnerships and this will create a better environment for further investment in the sector.

PART 2 - SHORT ANSWER QUESTIONS FOR DETERMINING THE BENEFITS OF A RURAL ELECTRIFICATION WEBSITE/WEB PAGE

What do you think should be the primary goal/purpose of a SARI/Energy RES website/page?

We had a separate officer to handle the Energy Information Center of the Energy Forum and he was responsible for providing necessary information by visiting necessary websites. Therefore I am not the best person to answer these questions.

Course 5.1: Creating the Environment for the REUs - Models for RE in South Asia, CORE International, Inc.

Name: **Mr. V.K. Khanna**
Title: **Executive Director**
Organization/Agency: **Rural Electrification Corporation Ltd.**
Country: **India**

PART 1 - SHORT ANSWER QUESTIONS FOR DOCUMENTING SUCCESS STORIES AND IMPACTS

Describe one or more specific incidents in which you were able to share, apply and/or utilize knowledge gained through your participation in the workshop. This may apply to India, or any other country in the region.

"The successful REU model of Bangladesh has been cited in various fora for adoption in selected areas/regions, to create similar success stories"

Mr. V. K. Khanna, India

The successful REU model of Bangladesh has been cited in various fora for adoption in selected areas/regions, to create similar success stories.

What was the positive impact and result that occurred in your organization and/or community as a result?

Recognition has begun emerging of the need for distributive generation/decentralized generation and supply of power in rural areas. However, the economics of distributive generation, particularly with reference to application of various renewable energy options, remains to be established.

Please describe in your own words how this result relates to the objectives of the South Asia Regional Initiative for Energy.

It highlighted the need for further Regional Workshops to share experiences on this subject. These can focus on Rural Energy Service companies, including where they are operating and which have emerged successfully.

PART 2 - SHORT ANSWER QUESTIONS FOR DETERMINING THE BENEFITS OF A RURAL ELECTRIFICATION WEBSITE/WEB PAGE

What do you think should be the primary goal/purpose of a SARI/Energy RES website/page?

The website should be interactive and serve as a resource for RE best practices worldwide.

What would you recommend as the content for this website/page?

Besides RE scenarios worldwide, it should discuss international experience on issues concerning implementation of RE programs covering technical, financial, organizational, and legal issues.

"(The website) should encompass international experience of issues concerning implementation of RE program covering technical, financial, organizational, and legal issues"

Mr. V. K. Khanna, India

Who should be the primary users of this website/page?

Engineers, Managers, Policy Planners, Financiers, Manufacturers, Consultants, etc., concerned with the formulation and implementation of RE programs.

If the website/page contained information regarding best practices in rural electrification worldwide, would you view this website/web page on a routine basis from your office?

Definitely, yes

Please provide any other comments relevant to the development of a website/page for participants in the South Asia Regional Initiative for Energy (SARI/E) Rural Electric Services (RES).

A system of continuous feedback on innovative practices and implementation experiences should be introduced.

Course 5.1: Creating the Environment for the REUs - Models for RE in South Asia, CORE International, Inc.

Name: **Mr. Pradeep Mani Pradhan**
Title: **Project Manager**
Organization/Agency: **Department of Power, Ministry of Trade & Industry**
Country: **Bhutan**

PART 1 - SHORT ANSWER QUESTIONS FOR DOCUMENTING SUCCESS STORIES AND IMPACTS - YOUR REAL LIFE EXAMPLE

Describe one or more specific incidents in which you were able to share, apply and/or utilize knowledge gained through your participation in the course. This may apply to Bhutan, or another country in the region.

The workshop for Creating the Environment for the REUs - Models for RE in South Asia, provided me with an insight of how the different energy units function in South Asia. This helped me to think about how some of the successful models could be incorporated fully or partially into our system. The Department of Power had a pyramid system, "top down" approach, and there were already plans to decentralize the system to a flatter system. The knowledge gained during the workshop helped me to participate and contribute more effectively in the discussions that were held for the corportization of the Department of Power. The Department of Power has been now divided up into three different utilities, namely;-Bhutan Power Corporation for the utility functions, Department of Energy for Policy functions, and Bhutan Electricity Authority (planned to be operational by next year) for the regulatory functions. Also, through the site visits I had learned about the operation of the solar as well as the distribution/rural electrification system in Bangladesh.

What was the positive impact and result that occurred in your organization and/or community as a result?

In Bhutan, for the solar system, we intend to adopt the type of working system Gramin Shakti has adopted. The training of solar technicians has already been completed by the Department of Energy and these trainers will further train the community to operate and maintain the system so that it becomes sustainable in the long run.

Please describe in your own words how this result relates to the objectives of the South Asia Regional Initiative for Energy.

This is because the exchange of information and knowledge is imperative in the SARI/Energy program.

Course 5.1: Creating the Environment for the REUs - Models for RE in South Asia, CORE International, Inc.

Name: **Mr. Prakash Jana Rana**
Title: **Chief, NEA Training Center**
Organization/Agency: **Nepal Electricity Authority**
Country: **Nepal**

PART 1 - SHORT ANSWER QUESTIONS FOR DOCUMENTING SUCCESS STORIES AND IMPACTS

Describe one or more specific incidents in which you were able to share, apply and/or utilize knowledge gained through your participation in the workshop. This may apply to Nepal, or any other country in the region.

I had given a lecture in Power Sector Reform at one of the training courses conducted in the Training Center that included ideas for the SARI training relevant to Rural Electrification models in Bangladesh. The thematic ideas of the training course are proposed to be included in different training courses which will be conducted in the Training Center of NEA.

What was the positive impact and result that occurred in your organization and/or community as a result?

Since Nepal is country dominated by rural population, as a whole, sharing of ideas in managing effective rural electrification models in other countries has definitely brought out positive impacts in this respect. The results of sharing ideas of such actions are definitely to occur in future.

Please describe in your own words how this result relates to the objectives of the South Asia Regional Initiative for Energy.

All of the countries in South Asia have a common social, cultural, and economic status. The common goal of these countries is towards poverty alleviation through infrastructure development and reforms through technological changes. The SARI/E program may accelerate the proper implementation of power sector reform in these countries through mutual exchange of ideas for the fulfillment of their objectives. Rural Electrification approaches in different South Asian countries have had a very diverse approach and their results have also been successful or unsuccessful based upon their implementation models. The SARI/E approach for regional initiative for energy can definitely help in identifying a better approach towards rural electrification in these countries by sharing their experiences.

PART 2 - SHORT ANSWER QUESTIONS FOR DETERMINING THE BENEFITS OF A RURAL ELECTRIFICATION WEBSITE/WEB PAGE

What do you think should be the primary goal/purpose of a SARI/Energy RES website/page?

The website should include the best practices of rural electrification in different countries. It should include successes and failures of different approaches to rural electrification in different countries.

What would you recommend as the content for this website/page?

It should contain experiences in different countries on technical approaches, commercial approaches towards level of subsidies, and social approaches in creating atmosphere of local participation etc. It should also contain warnings regarding approaches which result in system losses, non-recovery of revenues, etc.

Who should be the primary users of this website/page?

All the power sector institutions in South Asian countries dealing with rural electrification should be beneficiaries of such website.

If the website/page contained information regarding best practices in rural electrification worldwide, would you view this website/web page on a routine basis from your office?

The planning, research, and training wings of institutions should be assigned as mandatory viewers and exchange the ideas with other units of the organization.

Please provide any other comments relevant to the development of a website/page for participants in the South Asia Regional Initiative for Energy (SARI/E) Rural Electric Services (RES).

It is necessary that a unit in SARI/E program should be set up to gather information from different RE related institutions, promote, and to get feedback on the program on a regular basis. A regular newsletter in this respect would help in the process of implementation for such program.

Course 5.1: Creating the Environment for the REUs - Models for RE in South Asia, CORE International, Inc.

Name: **Mr. Trilochen Singh**
Title: **Managing Director**
Organization/Agency: **West Bengal Rural Energy Development Corporation**
Country: **India**

PART 1 - SHORT ANSWER QUESTIONS FOR DOCUMENTING SUCCESS STORIES AND IMPACTS

Describe one or more specific incidents in which you were able to share, apply and/or utilize knowledge gained through your participation in the workshop. This may apply to Nepal, or any other country in the region.

We had organized a seminar with top Panchayet functionaries (elected peoples' representatives for local self Government) from all the Districts of the State where the experiences of the Bangladesh model of electricity distribution was discussed with a view to impress upon them the importance of local participation, as well as charging them for energy consumed to ensure proper maintenance, supply of reliable and quality power, and future expansion of distribution. Similar workshops/ discussions were held in other districts.

What was the positive impact and result that occurred in your organization and/or community as a result?

The reform process in power distribution has speeded up.

Please describe in your own words how this result relates to the objectives of the South Asia Regional Initiative for Energy.

Objectives of SARI are very well received and there is now widespread awareness and feeling that distribution reforms are absolute necessary to ensure proper maintenance, supply of reliable and quality power, and future expansion of distribution of power.

PART 2 - SHORT ANSWER QUESTIONS FOR DETERMINING THE BENEFITS OF A RURAL ELECTRIFICATION WEBSITE/WEB PAGE

What do you think should be the primary goal/purpose of a SARI/Energy RES website/page?

To provide all kinds of information relating to energy, environment, and sustainability.

What would you recommend as the content for this website/page?

To highlight the objectives, importance, and best practices in power sector reform in various countries.

Who should be the primary users of this website/page?

People's representatives and policy makers/workers in the energy sector.

If the website/page contained information regarding best practices in rural electrification worldwide, would you view this website/web page on a routine basis from your office?

Yes.

Please provide any other comments relevant to the development of a website/page for participants in the South Asia Regional Initiative for Energy (SARI/E) Rural Electric Services (RES).

A forum to share views and experiences should be created for users.

3. Course 5.2: Regulating Rural Electric Utilities (REUs) and Off-Grid Utility Systems, CORE International, Inc.

LOCATION:
Kathmandu, Nepal
DATES:
December 3 - 8, 2001

SYNOPSIS:

The primary objective of the course on "Regulating Rural Electric Utilities and Off-Grid Power Systems" was to provide insight into various REU models and the need to modify existing laws and regulations for providing the right kind of environment for REUs to flourish. The course provided regulatory policy developers and existing and potential future regulators and their key staff with a thorough understanding of how to regulate and establish tariff for both REUs and off-grid utility systems. Consequently, the REUs who purchase bulk electricity and have franchise right can effectively supply power regularly, implement electricity tariff, and be accountable for their performance to their consumers.

PARTICIPANT SURVEY RESPONSES:

Name:	**Mr. R.A. Dassanayake**
Title:	**Project Officer**
Organization/Agency:	**DFCC Bank**
Country:	**Sri Lanka**

PART 1 - SHORT ANSWER QUESTIONS FOR DOCUMENTING SUCCESS STORIES AND IMPACTS

Describe one or more specific incidents in which you were able to share, apply and/or utilize knowledge gained through your participation in the workshop. This may apply to Sri Lanka, or any other country in the region.

Knowledge gained during the program was used in structuring a new project ,"Renewable Energy for Rural Economic Development Project" (REREDP), for Sri Lanka with the prime objective of rural economic development. We also look forward to deregulation in many areas to remove obstacles for the private sector initiatives to work freely where the market forces will take the lead. This was argued at length during SARI workshop in Nepal.

What was the positive impact and result that occurred in your organization and/or community as a result?

We were able to formulate and manage a project three times bigger than its forerunner (ESDP) with an estimated electrification of 100,000 rural households, 1000 small enterprises, and capacity addition of 85 MW through renewable energy.

Please describe in your own words how this result relates to the objectives of the South Asia Regional Initiative for Energy.

This will ensure substantial amounts of electrification in rural areas in a sustainable manner.

PART 2 - SHORT ANSWER QUESTIONS FOR DETERMINING THE BENEFITS OF A RURAL ELECTRIFICATION WEBSITE/WEB PAGE

What do you think should be the primary goal/purpose of a SARI/Energy RES website/page?

To share each countries project experience in the region when providing energy.

What would you recommend as the content for this website/page?

- True stories
- Statistics and achievements of each project
- Different models experimented and their success/failure
- Productive use of energy and income generating activities

Who should be the primary users of this website/page?

- Financiers for energy projects
- Provincial councils of governments
- Policy makers of different countries
- Consultants/project developers
- End users

If the website/page contained information regarding best practices in rural electrification worldwide, would you view this website/web page on a routine basis from your office?

Once in three months; based on how interesting and practical the best practices are.

Please provide any other comments relevant to the development of a website/page for participants in the South Asia Regional Initiative for Energy (SARI/E) Rural Electric Services (RES).

Provide a link for other project web sites. For example, our company web site: http://www.energyservices.lk.

Course 5.2: Regulating Rural Electric Utilities (REUs) and Off-Grid Utility Systems, CORE International, Inc.

Name: **Mr. Ram Bhakta Karki**
Title: **Director, Operations Department**
Organization/Agency: **Butwal Power Company**
Country: **Nepal**

PART 1 - SHORT ANSWER QUESTIONS FOR DOCUMENTING SUCCESS STORIES AND IMPACTS - YOUR REAL LIFE EXAMPLE

Describe one or more specific incidents in which you were able to share, apply and/or utilize knowledge gained through your participation in the course. This may apply to Nepal, or another country in the region.

Our company, Butwal Power Company Limited, is carrying out electrification at the remote hilly scattered villages near our own power plants and transmission line routes on the principle of social development activities. The returns from it against investment are negligible. Therefore, the concept of creating co-operatives can be implemented selling the energy on reasonable bulk rate to the pocket village cooperatives.

What was the positive impact and result that occurred in your organization and/or community as a result?

Handing over the networks to the cooperatives can minimize the overhead for operation and maintenance of the distribution networks.

Please describe in your own words how this result relates to the objectives of the South Asia Regional Initiative for Energy.

Few village people have access to the electricity in the South Asia Region. Therefore, the participation of such cooperatives will speed up the progress of electrification.

PART 2 - SHORT ANSWER QUESTIONS FOR DETERMINING THE BENEFITS OF A RURAL ELECTRIFICATION WEBSITE/WEB PAGE

What do you think should be the primary goal/purpose of a SARI/Energy RES website/page?

It should provide an opportunity to share knowledge among the participants.

What would you recommend as the content for this website/page?

Updated news on best practices and achievements on RES.

Who should be the primary users of this website/page?

Those who are involved in relevant areas of RES.

If the website/page contained information regarding best practices in rural electrification worldwide, would you view this website/web page on a routine basis from your office?

Yes, definitely.

Course 5.2: Regulating Rural Electric Utilities (REUs) and Off-Grid Utility Systems, CORE International, Inc.

Name: **Mr. Dilli Raman Neupane**
Title: **Engineer**
Organization/Agency: **Alternative Energy Promotion Centre (AEPC)**
Country: **Nepal**

PART 1 - SHORT ANSWER QUESTIONS FOR DOCUMENTING SUCCESS STORIES AND IMPACTS - YOUR REAL LIFE EXAMPLE

Describe one or more specific incidents in which you were able to share, apply and/or utilize knowledge gained through your participation in the course. This may apply to Nepal, or another country in the region.

I have not yet had the proper opportunity in terms of annual plans in our program so as to utilize my knowledge from the Rural Electrification (RE) sector. We have planned an activity called - Preparation of Framework for Decentralized Regulation (Pilot Project on Mini-Grid Concept). This activity will be carried out by GTZ/ Small Hydro Promotion Project jointly with AEPC and planned for late this year. Under rules and regulations, including institutional models, decentralized electrification by mini hydro plants (100 kW to 1 MW) would be prepared. A pilot project for implementation of these guidelines is also planned, tentatively, for next year.

What was the positive impact and result that occurred in your organization and/or community as a result?

No proper opportunity yet.

Please describe in your own words how this result relates to the objectives of the South Asia Regional Initiative for Energy.

N/A

PART 2 - SHORT ANSWER QUESTIONS FOR DETERMINING THE BENEFITS OF A RURAL ELECTRIFICATION WEBSITE/WEB PAGE

What do you think should be the primary goal/purpose of a SARI/Energy RES website/page?

The web page should be able to share information related to RE and act as a resource centre.

What would you recommend as the content for this website/page?

The contents of the web page should contain: (i) Examples on better/new practices in RE in the countries around the globe. Those examples should include tariff/financing structures and systems adopted for implementation and management of RE projects (ii) Papers which can provide guidance to actors/experts in RE sectors.

Who should be the primary users of this website/page?

Users should be stakeholders in RE sector of south Asian countries, especially: implementing agencies, financing institutions, regulatory bodies, policy makers, donors, consultants, etc.

If the website/page contained information regarding best practices in rural electrification worldwide, would you view this website/web page on a routine basis from your office?

I would not use this page on a routine basis, but as required mainly during the decision making process or while preparing some implementing modalities (so as to archive reference materials for guidance to me). I would like to see the page serving those purposes.

Please provide any other comments relevant to the development of a website/page for participants in the South Asia Regional Initiative for Energy (SARI/E) Rural Electric Services (RES).

The website should be simple enough to encourage the participation of mid-level professionals and the general public. It should have a strong search engine built in so as to make it more precise. Country examples should be sorted by country and "modality of implementation", or a similar field, for finding proper information very quickly.

"The website should be simple enough to encourage participation from mid-level professionals and the general public. It should have a strong search engine built in so as to make it more precise"

Mr. Dilli Raman Neupane, Nepal

Course 5.2: Regulating Rural Electric Utilities (REUs) and Off-Grid Utility Systems, CORE International, Inc.

Name: **Mr. Jeevan Shrestha**
Title: **Chief, Corporate Planning**
Organization/Agency: **Nepal Electricity Authority**
Country: **Nepal**

PART 1 - SHORT ANSWER QUESTIONS FOR DOCUMENTING SUCCESS STORIES AND IMPACTS - YOUR REAL LIFE EXAMPLE

Describe one or more specific incidents in which you were able to share, apply and/or utilize knowledge gained through your participation in the course. This may apply to Nepal, or another country in the region.

No Response

What was the positive impact and result that occurred in your organization and/or community as a result?

No Response

Please describe in your own words how this result relates to the objectives of the South Asia Regional Initiative for Energy.

No Response

PART 2 - SHORT ANSWER QUESTIONS FOR DETERMINING THE BENEFITS OF A RURAL ELECTRIFICATION WEBSITE/WEB PAGE

What do you think should be the primary goal/purpose of a SARI/Energy RES website/page?

The primary goal/purpose should be to give full information on activities that CORE International has conducted so far under the SARI/Energy Program and output achieved with the objectives to assist those who have still not had opportunity to participate in the program but are involved in the Rural Electrification Program of their country and/or Regional Development Program through Rural Electrification.

What would you recommend as the content for this website/page?

Contents of the website should cover:

i) Introduction of SARI/Energy Program;

ii) Objectives;
iii) Calendar of Events:
  a) All past events should be given full details: Venue, List of participants with Telephone, e-mail address, contents of the Training/Course Program, suggestions from the participants during discussions (if available, and deemed to be useful to others), Course materials, and session recommendations, if available
  b) All future events
  c) Registration details in future programs for those who may be interested in participating
vi) Policy matters
vii) Regional Cooperation in the areas of Rural Electrification for Rural Development through Integrated Approaches;
viii) List of possible Assisting Agencies, helpful in the development of Development Program (i.e. Consultants, Experts, Funding Agencies etc.); and
ix) Names and addresses of the contact person for the queries on the web pages. Note: Timely updating should be arranged, as well.

Who should be the primary users of this website/page?

Engineers, Managers, Consultants, Administrators, etc. Basically, anybody, who is involved in the development of National Rural Electrification Program for Rural Development and/or interested in working in this area of interest.

If the website/page contained information regarding best practices in rural electrification worldwide, would you view this website/web page on a routine basis from your office?

I am very much involved in the Rural Electrification of rural, hilly areas on Nepal for Rural Development under the activities of Nepal Electricity Authority and HMG/N program. NEA is involved in the development of more suitable policies for Rural Electrification, as Nepal is a country specific in this region with a challenging threats and opportunities. I shall be glad to use such a helpful website on a routine basis, if available.

Please provide any other comments relevant to the development of a website/page for participants in the South Asia Regional Initiative for Energy (SARI/E) Rural Electric Services (RES).

If the successful rural electrification programs of one or more countries in the region, along with detailed policies, are also included on the website, that will definitely increase the utility of this website.

4. Course 5.3: Structuring and Implementing Rural Energy Program, CORE International, Inc.

LOCATION(S):
Colombo, Sri Lanka
DATES:
October 29 - November 3, 2001

SYNOPSIS:

The primary objective of the course on 'Structuring and Implementing Rural Energy Planning' was to train the trainers on rural energy planning concepts and methods, the decentralized planning process of rural energy planning at rural/local level and how it is different from top down approach. The course aimed to equip the trainers with various aspects on rural energy options, technologies, economics of energy supply, etc., in simple terms easily understood by local planners. The trainers would then train the energy planners at district/block/panchayat level in local language on how to plan for rural energy and implement the planned projects to achieve the objective of providing energy to rural mass on sustainable basis.

PARTICIPANT SURVEY RESPONSES:

Name: **Mr. Saminda Goonasekara**
Title: **Senior Project Officer**
Organization/Agency: **DFCC Bank**
Country: **Sri Lanka**

PART 1 - SHORT ANSWER QUESTIONS FOR DOCUMENTING SUCCESS STORIES AND IMPACTS

Describe one or more specific incidents in which you were able to share, apply and/or utilize knowledge gained through your participation in the workshop. This may apply to Sri Lanka, or any other country in the region.

I was able to help villagers in formulating Village Hydro Projects financed by DFCC Bank (where I work). This has been especially helpful in formulating the financing plan of the projects.

"I was able to help villagers in formulating Village Hydro Projects financed by DFCC Bank"

Mr. Saminda Goonasekara, Sri Lanka

What was the positive impact and result that occurred in your organization and/or community as a result?

The projects, as it is currently formulated, has better project viability and the commitment has been higher from the community.

Please describe in your own words how this result relates to the objectives of the South Asia Regional Initiative for Energy.

This will help SARI-Energy in finding better approaches in formulating projects for the energy sector.

PART 2 - SHORT ANSWER QUESTIONS FOR DETERMINING THE BENEFITS OF A RURAL ELECTRIFICATION WEBSITE/WEB PAGE

What do you think should be the primary goal/purpose of a SARI/Energy RES website/page?

To disseminate information on best practices as well as other rural and renewable energy information.

What would you recommend as the content for this website/page?

All rural and renewable energy related information.

Who should be the primary users of this website/page?

Developers and end users

If the website/page contained information regarding best practices in rural electrification worldwide, would you view this website/web page on a routine basis from your office?

Yes

Course 5.3: Structuring and Implementing Rural Energy Program, CORE International, Inc.

Name: **Mr. Rohan Senarath**
Title: **Program Manager**
Organization/Agency: **Intermediate Technology Development Group**
Country: **Sri Lanka**

PART 1 - SHORT ANSWER QUESTIONS FOR DOCUMENTING SUCCESS STORIES AND IMPACTS - YOUR REAL LIFE EXAMPLE

Describe one or more specific incidents in which you were able to share, apply and/or utilize knowledge gained through your participation in the course. This may apply to Sri Lanka, or another country in the region.

The course program has given very valuable information to the participants. As the leading institution that has been engaged in rural energy business in Sri Lanka since 1990, most of the contents in the course have not been a fresh exercise to me. But it is very good to know that many organizations are now being engaged in rural energy implementations and your initiative must have given them a very good exposure to enhance their knowledge in the structuring and implementing of rural energy programs.

What was the positive impact and result that occurred in your organization and/or community as a result?

Please refer to previous response.

Please describe in your own words how this result relates to the objectives of the South Asia Regional Initiative for Energy.

The energy supply to the rural poor in the South Asia region is one of the key challenges that every policy maker deals with. Involving policy makers in this program would have exposed them on to how to structure their annual plans and implement rural energy programs in their own provinces.

PART 2 - SHORT ANSWER QUESTIONS FOR DETERMINING THE BENEFITS OF A RURAL ELECTRIFICATION WEBSITE/WEB PAGE

What do you think should be the primary goal/purpose of a SARI/Energy RES website/page?

The primary goal should be (in my personal view) to focus on strategizing a sustainable environment for rural underprivileged categories to access energy.

What would you recommend as the content for this website/page?

- Updated summary details of socio-economic status of rural communities in various countries
- The credit programs, grants, and other subsidies that are focused on each rural energy program of the country
- Annual statistics and relevant data of rural electrification records of each country
- New technologies that can be adopted which aid rural energy needs
- Names and contact details of related GOs, INGOs, NGOs, Private organizations, CBOs, and other related agencies that are engaged in this business

Who should be the primary users of this website/page?

- Organizations that are currently engaged in rural energy delivery services
- Children - to give them a feeling on having a sustainable ecological balance of the earth lives
- Manufacturers, dealers, and other business communities that are engaged in technology development
- Major funding organizations that are interesting in diverting their funds in the area of rural energy service delivery

If the website/page contained information regarding best practices in rural electrification worldwide, would you view this website/web page on a routine basis from your office?

Of course, yes.

Please provide any other comments relevant to the development of a website/page for participants in the South Asia Regional Initiative for Energy (SARI/E) Rural Electric Services (RES).

Daily or weekly updates South Asia region energy news.

Course 5.3: Structuring and Implementing Rural Energy Program, CORE International, Inc.

Name: **Mr. D.M. Senaratne**
Title: **Assistant Secretary**
Organization/Agency: **Chief Ministry, Provincial Council – Ratnapura**
Country: **Sri Lanka**

PART 1 - SHORT ANSWER QUESTIONS FOR DOCUMENTING SUCCESS STORIES AND IMPACTS - YOUR REAL LIFE EXAMPLE

Describe one or more specific incidents in which you were able to share, apply and/or utilize knowledge gained through your participation in the course. This may apply to Sri Lanka, or another in the region.

The Rural Energy Program should be combined with other economic development programs and it should be integrated with rural entrepreneurial activities for sustainable rural development.

What was the positive impact and result that occurred in your organization and/or community as a result?

- The enhanced knowledge has been utilized in elaborating the effect of such events to the provincial level authorities and in managing to allocate more co-funding arrangements from the Provincial Authority with the existing funding mechanisms such as ESD/World Bank.

- Conducted a close coordination between the renewable energy planers, implementing NGOs, consumer CBOs, RE Suppliers/manufacturers, and Consumers.

- Managed to develop more effective monitoring indicators in order to monitor the progress of the provincial council supported projects

- Managed to establish more effective rapport and maintain dialogues with government sector, Private sector, and National NGOs that are engaged in the RE program.

- Managed the formulation of local energy planning cells at village level.

- Due to participation in the training courses, data collection and analysis techniques in the province has been improved and effectively strategized.

- Provided inputs and necessary coordination in order to conclude the five-year Provincial Energy plan.

- Facilitated to form a Provincial level Energy Forum.

Please describe in your own words how this result relates to the objectives of the South Asia Regional Initiative for Energy.

It is obvious, through various indicators, that the South Asian rural sector has not reached the targeted levels of the anticipated development, although a number of development projects have been put in place. In particular, the energy sector needs of the rural population have not been fulfilled with the planned activities due to various hindrances. In my province (Sabaragamuwa), 60% of the rural population does not have access to the national grid electricity due to scattered living pattern and difficult geographical phenomena. The *mission* of the five-year power and energy development plan of Sabaragamuwa is to develop sustainable systems of alternative energy options using Mini hydro, Solar, Bio gas, and Wind. It is expected to provide electricity in the rural areas by using these alternative renewable options.

The above results were the outcomes of the objectives that were planned by the South Asia Regional Initiative for Energy.

PART 2 - SHORT ANSWER QUESTIONS FOR DETERMINING THE BENEFITS OF A RURAL ELECTRIFICATION WEBSITE/WEB PAGE

What do you think should be the primary goal/purpose of a SARI/Energy RES website/page?

It would be a remarkable opportunity to share the experience and lessons in other South Asian countries on the RE program. Transferring new technology to and from other countries will be another opportunity.

What would you recommend as the content for this website/page?

- Case studies.
- Data base
- Reports
- Information

Who should be the primary users of this website/page?

Provincial and regional planers.

If the website/page contained information regarding best practices in rural electrification worldwide, would you view this website/web page on a routine basis from your office?

Yes

Please provide any other comments relevant to the development of a website/page for participants in the South Asia Regional Initiative for Energy (SARI/E) Rural Electric Service (RES)

Updated information on new initiatives would be very much appreciated.

Course 5.3: Structuring and Implementing Rural Energy Program, CORE International, Inc.

Name: **Mr. Karma Tshering**
Title: **Executive Engineer, Planning & Coordination Division**
Organization/Agency: **Department of Energy, Ministry of Trade & Industry**
Country: **Bhutan**

PART 1 - SHORT ANSWER QUESTIONS FOR DOCUMENTING SUCCESS STORIES AND IMPACTS - YOUR REAL LIFE EXAMPLE

Describe one or more specific incidents in which you were able to share, apply and/or utilize knowledge gained through your participation in the course. This may apply to Bhutan, or another country in the region.

The de-centralized rural planning concept has always been appreciated and encouraged in Bhutan. Most of the planning processes in Bhutan are based on a bottom-up approach instead of top-down approach. The course has given us deeper understanding of such planning concepts, particularly in terms of providing electricity to rural communities. All our plans are formulated based on extensive consultations with local communities at all levels, beginning from grass-roots level of villagers to block levels to district levels. The needs and preferences of local communities have always been given priority in all aspects of rural planning. The institutional capacities of the local bodies are continuously strengthened to meet greater challenges in line with de-centralized rural planning process.

Whenever we receive applications for energy demands, we first distinguish between the 'demands' and the 'actual requirements'. Doing this results in saving in terms of both investment and energy. Unnecessary investments not only waste energy in terms of substation and line losses, but also drain out most of the resources. The course has made me understand these facts properly.

"Most of the planning processes in Bhutan are based on a bottom-up approach instead of a top-down approach. The course has given us deeper understanding of such planning concepts, particularly in terms of providing electricity to rural communities"

Mr. Karma Tshering
Bhutan

We have also recently established a new Division, namely the Renewable Energy Division under the Department of Energy to plan, coordinate, and develop renewable energy, essentially, to provide electricity to remote and rural communities.

What was the positive impact and result that occurred in your organization and/or community as a result?

Such planning processes have always generated positive impacts for both the organization and the community. For example, with

the de-centralized rural planning, it becomes easier to implement any rural electrification projects, as local communities provide all the required assistance during the implementation stage (as they were involved right from the planning stage). The organization benefits by completing the projects successfully on time and thereby opening opportunities for more funding sources. The community's benefit by having quicker access to electricity and, thereby, socio-economic development at faster pace.

Please describe in your own words how this result relates to the objectives of the South Asia Regional Initiative for Energy.

I do not have to describe separately. The answers to Questions 1 and 2 above speak for themselves.

PART 2 - SHORT ANSWER QUESTIONS FOR DETERMINING THE BENEFITS OF A RURAL ELECTRIFICATION WEBSITE/WEB PAGE

What do you think should be the primary goal/purpose of a SARI/Energy RES website/page?

It should portray the primary objective of providing electricity to all sections of community in the SARI/E and thereby contribute to socio-economic development in the region.

What would you recommend as the content for this website/page?

It can cover a variety of topics related to RE. In particular, it should cover those RE practices and technology, which are adopted from developed countries but are replicated successfully in SARI/E regions in a sustainable manner.

Who should be the primary users of this website/page?

Policymakers, Rural Energy Planners, Financial Institutions, International Donors/Lenders, Engineers, Economists, etc.

If the website/page contained information regarding best practices in rural electrification worldwide, would you view this website/web page on a routine basis from your office?

Certainly, whenever time permits.

Please provide any other comments relevant to the development of a website/page for participants in the South Asia Regional Initiative for Energy (SARI/E) Rural Electric Services (RES).

All the best practices (updated from time to time) of the member countries should be available on the website so that member countries can share this information on a regular basis.

5. Course 5.4: Enhancing the Environment for Small Electric Power Generation, CORE International, Inc.

LOCATION(S):
Kathmandu, Nepal
DATES:
September 3 - 8, 2001

SYNOPSIS:

The primary objective of the course was to introduce the upper level management of Rural Electric Utilities (REUs) in the South Asia Region, independent power producers, and regulatory officials to conditions that could create the right environment for private sector developers to construct and operate small power generation facilities. A detailed analysis of the technical issues related to distributed small power generation, system reliability, renewable energy technology (hydropower, wind power and biomass based power), negotiating Agreements (Power Purchase Agreement, Land Lease Agreements, Fuel Supply Agreements, etc.), needs and methods of electricity wheeling and banking, financing of small generation and other related issues were presented. The course helped in facilitating a greater understanding among utility officials, small power producers and policy makers of the interplay of all the issues involved in promoting, implementing and harnessing fruitfully the power generated from small power generation facilities to mitigate the power shortage and provide power to the rural society on a sustainable basis for their economic and social betterment.

PARTICIPANT SURVEY RESPONSES:

Name:	**Mr. Arjun Adhikari**
Title:	**Environmental Officer**
Organization/Agency:	**Annapurna Group (P) Ltd.**
Country:	**Nepal**

PART 1 - SHORT ANSWER QUESTIONS FOR DOCUMENTING SUCCESS STORIES AND IMPACTS

Describe one or more specific incidents in which you were able to share, apply and/or utilize knowledge gained through your participation in the workshop. This may apply to Nepal, or any other country in the region.

When we are discussing an income generating package for target groups in and around the project area, we were able to meet their needs by forming the user's Group (UG). Another incident was able to convince the local people that the project is working for their own benefit.

What was the positive impact and result that occurred in your organization and/or community as a result?

We, the Annapurna Group Pvt. Ltd., were able to reorganize its organizational structure which could now easily accessible to the local people.

Please describe in your own words how this result relates to the objectives of the South Asia Regional Initiative for Energy.

I think one of the objectives of the SARI/Energy is to establish technologies which must benefit the local people. We are now able to make the participation of the local people in our project to meet their basic needs.

PART 2 - SHORT ANSWER QUESTIONS FOR DETERMINING THE BENEFITS OF A RURAL ELECTRIFICATION WEBSITE/WEB PAGE

What do you think should be the primary goal/purpose of a SARI/Energy RES website/page?

I think the web site should include how technologies could easily reach the target groups.

What would you recommend as the content for this website/page?

1. Bioengineering technologies
2. Income generating packages
3. New technologies
4. Prices of equipments and spare parts of different manufacturers.
5. Workshop/seminar schedule
6. Successful examples of small generative projects.
7. Future activities of SARI/Energy

Who should be the primary users of this website/page?

I think the staffs of the relevant project should be primary users of your web page so that they can share the ideas among the people during the project work.

If the website/page contained information regarding best practices in rural electrification worldwide, would you view this website/web page on a routine basis from your office?

Yes! We and other related offices would be grateful to SARI/Energy and our staff would benefit from regular visits to your web page.

Please provide any other comments relevant to the development of a website/page for participants in the South Asia Regional Initiative for Energy (SARI/E) Rural Electric Services (RES).

During web page design you should keep in mind that the contents of the web page should be directly benefiting the relevant people.

Course 5.4: Enhancing the Environment for Small Electric Power Generation, CORE International, Inc.

Name: **Mr. K.C. Chehtra**
Title: **Senior Divisional Engineer**
Organization/Agency: **Ministry of Water Resources**
Country: **Nepal**

PART 1 - SHORT ANSWER QUESTIONS FOR DOCUMENTING SUCCESS STORIES AND IMPACTS

Describe one or more specific incidents in which you were able to share, apply and/or utilize knowledge gained through your participation in the workshop. This may apply to Nepal, or any other country in the region.

No Response

What was the positive impact and result that occurred in your organization and/or community as a result?

No Response

Please describe in your own words how this result relates to the objectives of the South Asia Regional Initiative for Energy.

No Response

PART 2 - SHORT ANSWER QUESTIONS FOR DETERMINING THE BENEFITS OF A RURAL ELECTRIFICATION WEBSITE/WEB PAGE

"(The website) should provide useful information towards increasing the existing power supply facilities in rural areas of South Asian Countries from the present 5% - 10% to 100%"

Mr. K.C. Chehtra, Nepal

What do you think should be the primary goal/purpose of a SARI/Energy RES website/page?

It should provide useful information towards increasing the existing power supply facilities in rural areas of South Asian Countries from the present 5% - 10% to 100% people of rural areas at their affordable price of these countries by efficient utilizing of each countries resources.

What would you recommend as the content for this website/page?

- Introduction of rural electrification system.
- Criteria for selection of R.E. project sites.
- Load forecasting
- Identification of supply sources.
    - Transmission grid voltage and distribution voltage source
    - Small hydropower projects
    - Photo voltaice cell
    - Wind power
    - Thermal power etc.
- Procurement & construction of power projects.
- Operation & maintenance procedures
- Rate making & tariff settings.
- Revenue collection
- Communication between utility and consumers.

Who should be the primary users of this website/page?

- Energy planners
- Government employee involving in energy & power projects
- Independent power producer
- Consumers
- Utilities (Govt. & Private)
- Regulators

If the website/page contained information regarding best practices in rural electrification worldwide, would you view this website/web page on a routine basis from your office?

I would utilize this website in routine basis.

Please provide any other comments relevant to the development of a website/page for participants in the South Asia Regional Initiative for Energy (SARI/E) Rural Electric Services (RES).

The website/page to be developed for participants in the South Asia Regional Initiative for Energy (SARI/E) Rural Electric Services (RES) will be very useful. I will recommend other suggestions after my participation in the rural electrification program.

Course 5.4: Enhancing the Environment for Small Electric Power Generation, CORE International, Inc.

Name: **Mr. Guru Prasad Neupane**
Title: **Managing Director**
Organization/Agency: **Arun Valley Hydropower Development Co. (Pvt.) Ltd.**
Country: **Nepal**

PART 1 - SHORT ANSWER QUESTIONS FOR DOCUMENTING SUCCESS STORIES AND IMPACTS

Describe one or more specific incidents in which you were able to share, apply and/or utilize knowledge gained through your participation in the course. This may apply to Nepal, or another country in the region.

I had an opportunity to participate a seminar organized by CORE on "Enhancing the Environment for Small Scale Electric Power Generation", September 3-8, 2001 in Nepal. I have been able to share my experience as a private developer with other SARI/E members. Specifically, the process of Power Purchase Agreement (PPA) was interesting to all other participants.

What was the positive impact and result that occurred in your organization and/or community as a result?

Private developers, government officials, and other related officials were together to share the ideas and participate in discussion.

Please describe in your own words how this result relates to the objectives of the South Asia Regional Initiative for Energy.

It helps to bring the private developers and other related officials together in the regional development for energy.

PART 2 - SHORT ANSWER QUESTIONS FOR DETERMINING THE BENEFITS OF A RURAL ELECTRIFICATION WEBSITE/WEB PAGE

What do you think should be the primary goal/purpose of a SARI/Energy RES website/page?

Provide information on renewable energy development with special attention on small hydropower projects development.

What would you recommend as the content for this website/page?

I would be interested in obtaining information on:

- Address and information on different hydropower machine manufacturing companies;
- List of professionals and companies willing to work as consultant and developers of hydropower projects;
- List of mutual fund and venture capital fund companies willing to invest in hydropower projects;
- Best and commonly used books, articles related to design of hydropower projects.
- Create awareness to the Indian national that Nepal's water will be the best possible source for power, irrigation; and drinking water in north India in near future.

Who should be the primary users of this website/page?

Hydropower developers, private and government researchers, donors, policy makers, etc.

If the website/page contained information regarding best practices in rural electrification worldwide, would you view this website/web page on a routine basis from your office?

Yes.

Please provide any other comments relevant to the development of a website/page for participants in the South Asia Regional Initiative for Energy (SARI/E) Rural Electric Services (RES).

Please provide a list of small hydropower projects developed in SARI regions.

Course 5.4: Enhancing the Environment for Small Electric Power Generation, CORE International, Inc.

Name: **Mr. V. Rajendran**
Title: **Additional General Manager (Distribution Construction & Services)**
Organization/Agency: **Ceylon Electricity Board**
Country:

PART 1 - SHORT ANSWER QUESTIONS FOR DOCUMENTING SUCCESS STORIES AND IMPACTS

Part 1: General Response:

My main role in the CEB is to head the Heavy Distribution Construction Maintenance and Services Divisions. I have been dealing with 33kV Medium Voltage Line Construction and Primary Substations. In addition to the above, my Division undertakes Construction and Maintenance of Buildings and Civil Structures in the CEB and provides ancillary Services such as air conditioning, Lifts and Generator Installations, and Maintenance to Government Institutions. I was selected to participate in this program mainly as a Senior Manager in the Ceylon Electricity Board. My contribution in the service was with the knowledge I gathered from different branches of the Ceylon Electricity Board for renewable resources generation, independent power producers and Rural Electrification. Hence you would appreciate that I would not be in position to answer your questions for real life examples. However I have informed the necessary people to adopt the programs that were conducted in the USAID Survey. The General Manager, in turn informed the respective Branches. I am pleased to inform that the Commercial Branch, which deals with the IPPP, Wind Generation, and Mini-Hydro Generation, is adopting the principles of enhancing the environment for Small Electric Power Generation.

PART 2 - SHORT ANSWER QUESTIONS FOR DETERMINING THE BENEFITS OF A RURAL ELECTRIFICATION WEBSITE/WEB PAGE

What do you think should be the primary goal/purpose of a SARI/Energy RES website/page?

With regard to the Rural Electrification Web Site, I am pleased to inform that it is a necessity for all of us in the Electricity Industry to view information available globally to develop our Industry. Hence we welcome operation of a Rural Electrification Web Site.

The website should include the principles adopted in evaluation of economic internal rate of return for Grid Connected Rural Electrification Schemes. The primary goal for this website should be to focus on educating Electricity Supply Industries on monitoring how society is benefiting subsequent to the development of Rural Electrification Schemes and to continue to develop this further. Also, it may include various Donor Agencies who would provide sufficient funds for underdeveloped Countries.

What would you recommend as the content for this website/page?

The contents for this website may include the progress made in various countries subsequent to the implementation of Rural Electrification Development in Non-Grid Connections and IPPP and System Reliability for Grid Connected Renewable Energy Sources. Also it may be necessary to identify the criteria for adopting or implementing Small Power Generation in the other countries. Different countries adopt different power purchase agreements and power supply agreements. It may be necessary for all the Industries to have knowledge of procedures adopted in the other countries. This would be useful information to be contained in this Web Site.

Who should be the primary users of this website/page?

Primarily, the users of this Web Site would be the Utilities, Commercial Banks, Consumer Societies, and Public Administrative Units, such as District Secretaries and Divisional Secretaries. Also the Ministry of Power and Energy, Ministry of Industries, Ministry of Infrastructure Development, and Ministry of Finance may also be users of this Web Site.

If the website/page contained information regarding best practices in rural electrification worldwide, would you view this website/web page on a routine basis from your office?

We would be pleased to view this Web Site on a routine basis from our offices if it contained information regarding best practices in Rural Electrification worldwide.

6. Workshop 5.1 (2002): Workshop on the Bangladesh Rural Electrification Model - Visit by the Indian Delegation to REB and Selected PBSs, CORE International, Inc.

LOCATION(S):
Dhaka, Bangladesh
DATES:
April 8 - 10, 2002

SYNOPSIS:

The objective of this workshop was to provide an opportunity to a selected number of Indian rural energy planners to visit Bangladesh and hold discussions with the Rural Electrification Board (REB) and the rural distribution utilities (PBSs) on specific elements of the Bangladesh rural electrification program. Through this one on one discussion and site visits to selected PBSs, the Indian officials were able to gain first-hand experience in the process of designing and implementing successful rural electrification schemes.

PARTICIPANT SURVEY RESPONSES:

Name:	**Mr. Ravi Budhiraja**
Title:	**Principal Secretary (Energy)**
Organization/Agency:	**Energy Department, Government of Maharashtra**
Country:	**India**

PART 1 - SHORT ANSWER QUESTIONS FOR DOCUMENTING SUCCESS STORIES AND IMPACTS

Describe one or more specific incidents in which you were able to share, apply and/or utilize knowledge gained through your participation in the workshop. This may apply to India, or any other country in the region.

We are in the process of preparing a white paper for power sector reforms in Maharashtra in the distribution sector. The visit to Bangladesh served as a base for designing a possible model for rural areas.

What was the positive impact and result that occurred in your organization and/or community as a result?

To find the best alternative, a committee has been appointed to go into modalities for reforms in rural areas. The committee will, I am sure, consider the Bangladesh experience, among other alternatives.

Please describe in your own words how this result relates to the objectives of the South Asia Regional Initiative for Energy.

The result will definitely further the objectives of the South Asia initiative for energy.

PART 2 - SHORT ANSWER QUESTIONS FOR DETERMINING THE BENEFITS OF A RURAL ELECTRIFICATION WEBSITE/WEB PAGE

What do you think should be the primary goal/purpose of a SARI/Energy RES website/page?

The primary goal of the website should be to provide a common forum.

What would you recommend as the content for this website/page?

The content should be success stories and sharing of experience gained.

Who should be the primary users of this website/page?

The primary users would be different utilities, and reforming states.

If the website/page contained information regarding best practices in rural electrification worldwide, would you view this website/web page on a routine basis from your office?

Yes

Please provide any other comments relevant to the development of a website/page for participants in the South Asia Regional Initiative for Energy (SARI/E) Rural Electric Services (RES).

The site may also provide a service for answering relevant queries.

Workshop 5.1 (2002): Workshop on the Bangladesh Rural Electrification Model - Visit by the Indian Delegation to REB and Selected PBSs, CORE International, Inc.

Name: **Mr. R. K. Verma**
Title: **Director**
Organization/Agency: **Central Electricity Authority**
Country: **India**

PART 1 - SHORT ANSWER QUESTIONS FOR DOCUMENTING SUCCESS STORIES AND IMPACTS

Describe one or more specific incidents in which you were able to share, apply and/or utilize knowledge gained through your participation in the workshop. This may apply to India, or any other country in the region.

My visit to Bangladesh was very educational. I briefed the Chairmen of the Central Electricity Authority and the Ministry of Power about the salient points. I also shared the experience with my colleagues. They all appreciated the efforts of the Government of Bangladesh in the effective electrification of rural areas.

What was the positive impact and result that occurred in your organization and/or community as a result?

I submitted a detailed report on my visit to the Government of India. Public participation in the management of the distribution system in rural areas is being considered as an effective alternative.

"I briefed the Chairmen of the Central Electricity Authority and the Ministry of Power about the salient points (of the Workshop). I also shared the experience with my colleagues. They all appreciated the efforts of the Government of Bangladesh in the effective electrification of rural areas"

Mr. R. K. Verma, India

Please describe in your own words how this result relates to the objectives of the South Asia Regional Initiative for Energy.

South Asia Regional Initiative for Energy has been successful in fulfilling its objective.

PART 2 - SHORT ANSWER QUESTIONS FOR DETERMINING THE BENEFITS OF A RURAL ELECTRIFICATION WEBSITE/WEB PAGE

What do you think should be the primary goal/purpose of a SARI/Energy RES website/page?

The primary goal should be to propagate the ideas that have proved successful in different parts of the world alongside success stories.

What would you recommend as the content for this website/page?

i) Details of schemes
ii) Effect on standard of living of the people
iii) Commercial viability of the schemes
iv) Feedback

Who should be the primary users of this website/page?

All people associated with Rural Electrification (i.e., government institutions, private entrepreneurs, consumers' cooperatives, and consumers).

If the website/page contained information regarding best practices in rural electrification worldwide, would you view this website/web page on a routine basis from your office?

Yes.

ANNEX IV: LIST OF SARI/ENERGY RURAL ELECTRIC SERVICES ACTIVITIES

ANNEX IV: LIST OF SARI/ENERGY RURAL ELECTRIC SERVICES ACTIVITIES (IN CHRONOLOGICAL ORDER)

1. ***Workshop 5.1 (2001): Meeting Rural Electric Needs in South Asia,*** **CORE International, Inc., Dhaka, Bangladesh, May 8 - 10, 2001**

2. ***Course 5.4: Enhancing the Environment for Small Electric Power Generation,*** **CORE International, Inc., Kathmandu, Nepal, September 3 - 8, 2001**

3. ***Course 5.3: Structuring and Implementing Rural Energy Program,*** **CORE International, Inc., Colombo, Sri Lanka, October 29 - November 3, 2001**

4. ***Course 5.2: Regulating Rural Electric Utilities (REUs) and Off-Grid Utility Systems,*** **CORE International, Inc., Kathmandu, Nepal, December 3 - 8, 2001**

5. ***Course 5.1: Creating the Environment for the REUs - Models for RE in South Asia,*** **CORE International, Inc., Dhaka, Bangladesh, February 2 - 6, 2002**

6. ***Workshop 5.1 (2002): Workshop on the Bangladesh Rural Electrification Model - Visit by the Indian Delegation to REB and selected PBSs,*** **CORE International, Inc., Dhaka, Bangladesh, April 8 - 10, 2002**